420230

A ThyssenKrupp Automotive Company

The Budd Company

ThyssenKrupp

February 13, 2002

For Hand Delivery

Carlyn Winter Prisk (3HS11)
United States Environmental Protection Agency – Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Section 104(e) Submission
The Budd Company
Lower Darby Creek Area Superfund Site

Dear Ms. Winter Prisk:

This letter is submitted in response to the information inquiry letter (the "Section 104(e) Letter") sent to The Budd Company ("Budd" or the "Company") eliciting information concerning the Lower Darby Creek Superfund Site (the "Site"). This response is subject to the following general and specific objections:

I. General and Specific Objections

1. Although the Company appreciates the extensions of time granted by the United States Environmental Protection Agency ("USEPA"), the time period within which the Section 104(e) Letter demands a response is too short and, as such, arbitrary, capricious and unreasonable as a matter of law. The information elicited relates to events that may be over forty years old, and to persons who have long since left the Company's employ or who may have passed away. It is possible, particularly given the long history of the Site and the Company's operations in Pennsylvania, that information responsive to the Section 104(e) Letter will not be discovered or discerned until after the date of this response. Accordingly, the Company reserves the right to supplement this response.

2. The Company objects to the Section 104(e) Letter to the extent that it seeks to compel the disclosure or production of information beyond that which USEPA is authorized to obtain pursuant to the statutory authorities cited therein. The Company further objects to the definitions and instructions, to the extent they go beyond the definitions provided in the statutory authorities that purport to authorize the Section 104(e) Letter.

3. The Company objects to the Section 104(e) Letter to the extent that it seeks to compel the disclosure or production of information or documents subject to a claim of privilege, including, without limitation, a claim of attorney client-privilege, accountant-client privilege or attorney work product. *No information or documents to which such a claim applies are being disclosed or produced with this response.*

The Budd Company - Corporate Offices
3155 W. Big Beaver Road, P.O. Box 2601
Troy, MI 48007-2601
Telephone: (248) 643-3500
Internet: www.buddcompany.com

4. The Company objects to the Section 104(e) Letter to the extent that it is vague, ambiguous, or unduly burdensome, and to the extent that it seeks the production of information or documents not relevant to hazardous substance disposal or management at the Site or not reasonably calculated to lead to the discovery of information or documents relevant to hazardous substance disposal or management at the Site.

5. The Company objects to the Section 104(e) Letter to the extent that it purports to impose a continuing or endless obligation on the Company to investigate the matters under inquiry or supplement this response. The Company disavows any such obligation as unreasonable as a matter of law and beyond USEPA's statutory authority cited in the Section 104(e) Letter.

6. The Company objects to the loose and undefined references throughout the Section 104(e) Letter to "the Site", the "properties", "Philadelphia area", the "Landfill" etc., insofar as those terms are undefined and no map or surveyed drawing is provided to identify and described those areas with certainty.

7. The Company objects to the Section 104(e) Letter to the extent it seeks to impose any affirmative obligation on the Company to conduct investigations outside of its current corporate offices or employees, or to develop or present information in any particular form or format not maintained by the Company in the ordinary course of its business. The Company further objects to the Section 104(e) Letter to the extent that it seeks to compel the Company to gather or produce information or documents not currently in the Company's care, custody and control.

II. Non-admission/Reservation of Rights.

Nothing in this response is intended, nor shall it be construed as, an admission of liability or fault in connection with the presence of hazardous substances on or about the Site, any environmental condition on or about the Site, or any release or threatened release of any hazardous or polluting substance on or about the Site. Moreover, nothing herein is intended, nor shall it be construed, as a release or waiver of any claims or causes of action the Company now has, or hereafter may have in connection with the Site or any person who may have owned or operated the Site, or who may have transported or arranged for the transportation or disposal of any hazardous substance to or other pollutant at the Site.

Additionally, the information provided herein is being provided under compulsion and the Company expressly reserves its rights, to the fullest extent permitted by law, to object to and oppose its use or production in any matter or proceeding.

III. Inclusion of Prior Submissions To USEPA.

In general response to the Section 104(e) Letter, the Company hereby incorporates by reference as if fully set forth its prior information and document submissions to USEPA in connection with the following matters, to the full extent information or documents contained therein are responsive to this Section 104(e) Letter:

- July 29, 1993 Letter to Lorraine Frigerio (USEPA Region II) relating to the Bridgeport Rental & Oil Services Superfund Site.
- May 1, 1994 Letter to Joan E. Martin-Banks (USEPA-Region III) relating to the Boarhead Farms Superfund Site.
- January 20, 1998 Letter from Transit America, Inc. (successor operator at the Red Lion Plant) to Suzanne Becker (USEPA-Region II) relating to the Central Steel Drum Superfund Site.

IV. Responses to Section 104(e) Letter.

1. The Budd Company
3155 W. Big Beaver Road
Troy, MI 48007-2601
248-643-3659

(a) Budd was incorporated in the State of Michigan in 1993.

(b) Budd was originally incorporated in the Commonwealth of Pennsylvania in 1912.

(c) Budd's indirect U.S. parent corporation is ThyssenKrupp USA, Inc., which is located at 3155 West Big Beaver Road, Troy, MI 48007-5084. Budd's current direct and indirect wholly-owned subsidiaries are Waupaca Foundry, Inc., Waupaca, WI; Milford Fabricating Company, Detroit, MI; Phillips & Temro Industries Inc., Eden Prairie, MN; Phillips & Temro Industries Ltd., Budcan Holdings, Inc., Kitchener Ontario, Greening Donald Co. Ltd., Orangeville, Ontario, Stahl Specialty Company, Kingsville, MO and Budd Canada Inc., Kitchener, Ontario. None of the Budd subsidiaries have had any dealings with the Site.

2. Currently, Budd has only one facility in Philadelphia, which is located at 2450 Hunting Park Avenue, Philadelphia, PA 19129 (the "Philadelphia Plant"). During the referenced period of 1958 through 1976, Budd also had a plant located at One Red Lion Road, Philadelphia, PA 19115 (the "Red Lion Plant"). The Philadelphia Plant makes steel stampings for use in motor vehicles and did so during the time period referenced in this inquiry. During the referenced time period, the Philadelphia Plant operations consisted of stamping steel parts on over 200 production presses and the assembly of steel body components, such as doors and lift gates for

automobile and truck manufacturers. Assembly operations were performed on mechanical and hydraulic presses, and clamping, piercing and welding fixtures that used hydraulic systems. Tool and Die operations during the referenced time period at the Philadelphia Plant between involved tool, die and fixture construction and try-out for the automotive industry. Between the late 1950's until its sale in 1968, Budd also operated its former Nuclear Systems Division, later called the Instruments Division, which was located on Roberts Road in Philadelphia. This division manufactured and sold industrial radiography machinery for the storage, fabrication and retailing of industrial isotopes. During the referenced time period, the Red Lion Plant housed part of Budd's Stamping and Frame Division (formerly "Automotive") whose operations involved the production of steel automotive chassis frames. The Railway Division (later called the "Transit Division") also operated at the Red Lion Plant, designing, manufacturing and assembling passenger railcars. In addition, the Red Lion Plant manufactured chassis for the automotive industry.

3. During the time period referenced, Budd employed thousands of people at its Red Lion and Philadelphia Plants. Today, Budd employs approximately 400 at the Philadelphia Plant – the Red Lion Plant operated as the Company's Railway Division, whose assets were spun-off to an affiliate entity in 1985 (Transit America, Inc.) which itself ceased manufacturing operations in approximately 1987. Many past or present employees of the Philadelphia Plant would be familiar with the automotive plant operations or various portions thereof. A Philadelphia Plant brochure (believed to be late 1970s) describing the operations is appended. See also the Company's response to USEPA's Section 104(e) letter related to the Bridgeport Rental & Oil Services Superfund Site. Richard Boles, currently Manufacturing Manager at the Philadelphia Plant has been employed at the Philadelphia Plant during the entire time period and is familiar with manufacturing operations. Regarding waste disposal, based on the Company's investigation to date, which involved interviewing individuals in the Purchasing, Environmental, Materials Handling and Maintenance Departments, there are no individuals currently employed who reported to have any detailed knowledge concerning waste disposal for the time period in question and none could identify any shipments of waste to the Site. Based on information and belief, some former employees who may have had knowledge are deceased. The following individuals may have some knowledge of waste disposal practices, although not all were contacted by the Company in the formulation of this response:

(a) Daniel Barnes, former employee. Last known address: [redacted]. During some part of the 1970s, and possibly earlier, Mr. Barnes was a material handler who operated the "squeezer," a piece of equipment that loaded plant trash into containers provided by outside haulers. Although not interviewed with respect to this response; Mr. Barnes was familiar with types of trash loaded into containers, which included paper, cardboard, and lunchroom trash.

(b) James McGovern, former employee in the Purchasing Department. Last known address: [redacted]
Mr. McGovern had some responsibilities for material disposals in the 1970s,

particularly with regard to waste oil. See Budd's Section 104(e) Response to USEPA (Region III) in connection with the Douglassville (a/k/a Berks Associate or reclamation resources) Site. Mr. McGovern, who was interviewed in connection with this response, reported that he had no knowledge of the Site and could not identify any shipments of waste produced by Budd as having been sent to the Site. As regards the waste haulers referenced in the Section 104(e) Letter, Mr. Barnes could only state that the name Tri-County "sounded familiar."

(c) Moses Evans, former employee. Last known address: [redacted] Mr. Evans was employed as a truck driver for Budd, beginning in 1969, and was interviewed by the Company in its preparation of this response. Mr. Evans was not familiar with the Site or the haulers identified in the Section 104(e) request and could not identify any shipments of waste produced by Budd as having been sent to the Site or commissioned to the named haulers. Prior to the mid-1970s Mr. Evans himself hauled Budd's trash to a City incinerator - first in Manayunk (commencing after the Budd incinerator was no longer used (perhaps the 1950s), and later to an incinerator on Pattison Avenue in South Philadelphia. Mr. Evans stated that each day he hauled two compacted truckloads of trash from the Philadelphia Plant to these City incinerators.

(d) George Reistad, former employee. Last known address: [redacted] Mr. Reistad's responsibilities at the Philadelphia Plant included Manager of Maintenance and Sanitation during part of the referenced time period. Mr. Reistad, who was interviewed in the Company's preparation of this response, stated that he was not knowledgeable concerning the location or disposition of waste generated by Budd, but was familiar with the processes by which wastes were generated. Mr. Reistad could not identify any shipments of waste produced by Budd as having been sent to the Site or commissioned to any of the referenced waste haulers.

(e) John Sarnese, former employee and Sanitation General Supervisor. Last known address: [redacted] telephone unknown. Mr. Sarnese reported to Mr. Reistad in the Sanitation Department and by virtue of his position may have some knowledge responsive to the matters under inquiry in the Section 104(e) Letter.

(f) Walter Russell, former employee. Last known address: [redacted]

(g) Craig Buchscheidt, Materials Handler. Mr. Buchscheidt's last known address is [redacted]. Mr.

Buchscheidt may be familiar with waste materials that were removed from the Philadelphia Plant by Tri-County in later years.

(h) Richard Tarone, former employee. Last known address: [redacted]. Between the early 1960s and 1972, Mr. Tarone was Assistant Controller, where he was responsible for accounts payable. When interviewed many years ago in connection with the Cinnaminson, NJ Superfund site, Mr. Tarone recalled that Budd used Tri-County Hauling for some part of the 1970s, to haul plant trash from the Red Lion and Philadelphia Plants.

(i) Eugene Baum, Sr., former employee. Last known address: [redacted]. During part of the referenced time period, Mr. Baum was responsible for contracting with outside haulers for waste disposal. The Company attempted to contact Mr. Baum in connection with its preparation of this response. Mr. Baum reportedly has no knowledge of the Site or the haulers and could not therefore identify any shipments of waste produced by Budd as having been sent to the Site. Mr. Baum reportedly thought the name "Tri-County" sounded familiar.

(j) John Pouch, former employee. Last known address: [redacted]. Formerly employed as a Buyer in the Purchasing Department. Mr. Pouch may have knowledge concerning the contracting for waste disposal services.

(k) Ken Siegfried, former employee. Last known address: [redacted]. Mr. Siegfried was a Material Handler. Mr. Siegfried would have been involved in the loading of trash trucks in the late 1970s. Mr. Siegfried, who was contacted by the Company in its preparation of this response, recalled the name "Tri-County", which he believed hauled plant trash from the Philadelphia Plant in the late 1970s, approximately 5 times per week.

(l) Gary Greeno, current employee. Mr. Greeno, who can be contacted through Budd's Office of General Counsel, may be knowledgeable concerning certain past disposal practices, based on past positions held with the Company during the referenced time period.

(m) Sid Ricke, former employee in the Sanitation Department at the Philadelphia Plant. Now deceased.

(n) John Wirth, former employee. Last known address: [redacted]. Mr. Wirth worked at the Red Lion

Plant and his name appeared on certain Tri-County documents from the late 1970s time period.

(o) Wallace Chapla, former employee. Mr. Chapla, who was employed for many years at the Red Lion Plant, may be knowledgeable regarding certain of the Company's waste management practices during the relevant time period.

At this time, the Company is without knowledge concerning the identity or knowledge of persons employed in the former Instruments Division (Roberts Road) insofar as waste generation and management is concerned. After reviewing Tri-County Trip Tickets recently produced to the Company in response to a Freedom of Information Act ("FOIA") request sent to USEPA regarding the Site, Budd is attempting to track down the identity and current whereabouts of possible employees whose names (as scrawled signatures) appear on the Tri-County Tickets.

4. Owner and operator information.

(a) Philadelphia Plant. Relevant here, the Philadelphia Plant has been operated by the Company since 1958 (to the present). Currently, a majority of the land is owned by Huntingside Properties, which directly or indirectly purchased the land and buildings from Budd in March 1978. Huntingside Properties is currently Budd's landlord at the Philadelphia Plant.

(b) Red Lion Plant. Relevant to this inquiry, Budd owned and operated the Red Lion Plant during the entire period between 1956 and 1976. In or about 1978, the property was sold to Redside Properties, Inc., which became Budd's landlord. In 1985 asssets of the Railway Division operation were transferred to Transit America Inc., an affiliated entity to the Company. Transit America subsequently purchased the property from Redside Properties, Inc. and discontinued manufacturing at the Red Lion Plant in 1987. The site has since been redeveloped and sold to unrelated entities for non-industrial, recreational-uses.

5. Philadelphia Plant and Red Lion Plant. During the referenced time period, or part thereof, it is believed that the following types of documents would have been generated in connection with the handling, generation, storage, treatment, transportation, recycling, formulation or disposal of any hazardous substance or waste: bid documents and Purchase Orders with any third party haulers, Shippers (which permitted truckers to remove material from the premises and which would have contained a description of what the material hauled, waste discharge permits, product data or MSDS sheets for products used at the plant, procedures for waste handling, Vendors logs, various procedures for material handling.

(a) Unknown.

(b). No such documents.

(c) No such contracts or correspondence can be located for the time period in question.

6 & 7. Due to the lapse of time and the lack of retained records it is not possible to identify today with reasonable specificity each hazardous substance used, generated, purchased, stored or otherwise handled at Budd's Philadelphia area plants during the referenced time frame. However, based on its knowledge of its business activities and other anecdotal information gathered from other Section 104(e) letter responses or other environmental management activities, it is reasonable to assume that hazardous substances where included in paints, oils, solvents (TCE), recyclable materials, coal and incinerator ash and other types of plant wastes likely to have been generated during the relevant time frame. No specific documentary information is available at this time to identify which substances or in what quantities or concentrations they may have been present. It also is possible that demolition or renovation activities involved the management of asbestos-containing materials, and that used oils managed on the properties during this time frame included oils containing PCBs. In fact, in the late 1970s Budd developed a PCB management program to change-out/phase-out PCB-containing electrical and other equipment. With respect to the Nuclear Division, prior to 1968, Budd is aware generally that wastes included by-product material (Cobalt 60 and possibly other materials) generated and disposed pursuant to NRC license, but Budd has no documentation available today regarding those activities. Except as specifically acknowledged herein, Budd has uncovered no documents or information confirming the shipment of <u>any</u> hazardous substance-containing wastes to the Site.

8. With respect to the entities listed in Question 8, Budd has no information or documentation that any of its facilities in Philadelphia ever did business with these entities for the period 1958 through 1976. Based on investigation conducted in connection with the Cinnaminson Superfund litigation, Budd's Philadelphia Plant did contract with Tri-County for trash removal for a period of time believed to be in the 1970s, but has no records for any time prior to 1977, other than Tri-County Trip Tickets (which make no reference to the Site) recently produced to Budd under a FOIA request to USEPA. In addition, Budd had a facility in Bridgeport, Pennsylvania, outside of Philadelphia, which utilized ABM Disposal in the mid-1970s. Documents in connection with ABM Disposal, which did not identify where the waste was disposed (and which make no reference to the Site here), were previously produced to USEPA in *U.S. v. Wade* and in connection with the Enterprise Avenue Site. That response and production to USEPA is incorporated by reference. Except as specifically acknowledged herein, Budd has uncovered no documents or information confirming the shipment of <u>any</u> hazardous substance-containing wastes to the Site.

9-11, inclusive. Except as specifically acknowledged herein, Budd has uncovered no documents or information confirming the shipment of <u>any</u> hazardous substance-containing wastes to the Site.

12. See answer to request no. 3.

13. No.

14. Not applicable.

15. Richard O. Lemke, Esquire and Jennifer Berke, Esquire (now a former employee). See also Budd's response to No. 3, above.

16. Documents for the time period in question may have included purchase orders and product data sheets. These would have been destroyed in the normal administration of the Company's local record retention practices at the time.

Budd is willing to supplement this response to address any documents or information USEPA believes implicate the Company in the disposal, or arrangement for disposal of any hazardous substances at the Site. If you would be kind enough to forward that information or any documents you believe to be relevant to the issue of Budd's contributions to the Site to me (other than the partially legible 1975 Tri-County Trip Tickets produced in response to our earlier FOIA request which make no reference to the Site), we will promptly review them and supplement this response.

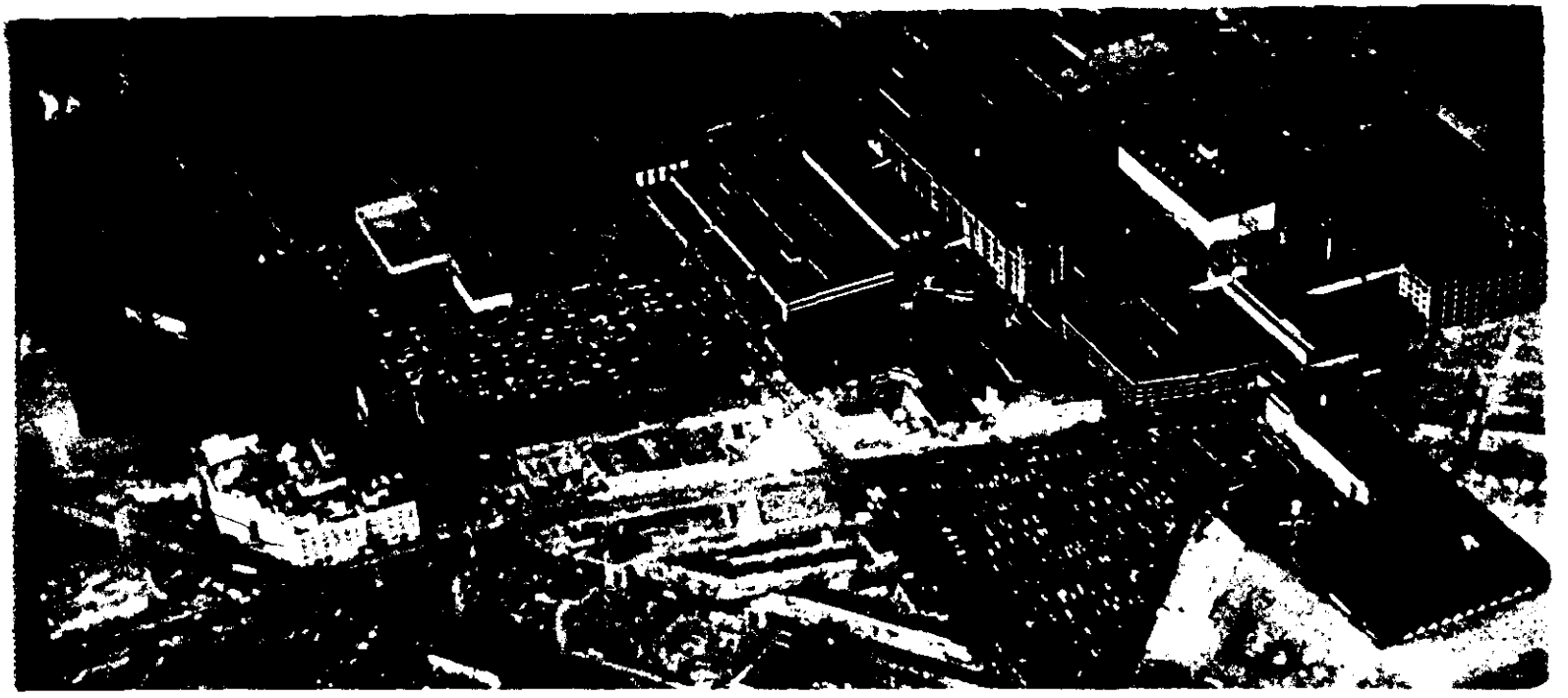
I thank you again for your time and cooperation.

Very truly yours,

Richard O. Lemke
Assistant General Counsel

Enclosures

cc: Brian Nishitani, Esquire [without enclosures]



Welcome To The Budd Company's Philadelphia Plant

For seven decades The Budd Stamping Plant has been dedicated to producing the highest quality products for satisfied customers in the transportation industry world wide.

Today, our plant serves these clients and responds to their needs through sophisticated robotics and electronic measuring devices.

In addition to hi-tech computerized machinery, Budd takes pride in its proficient technicians and skilled labor force, which ensures quality control in every stage of the manufacturing process.

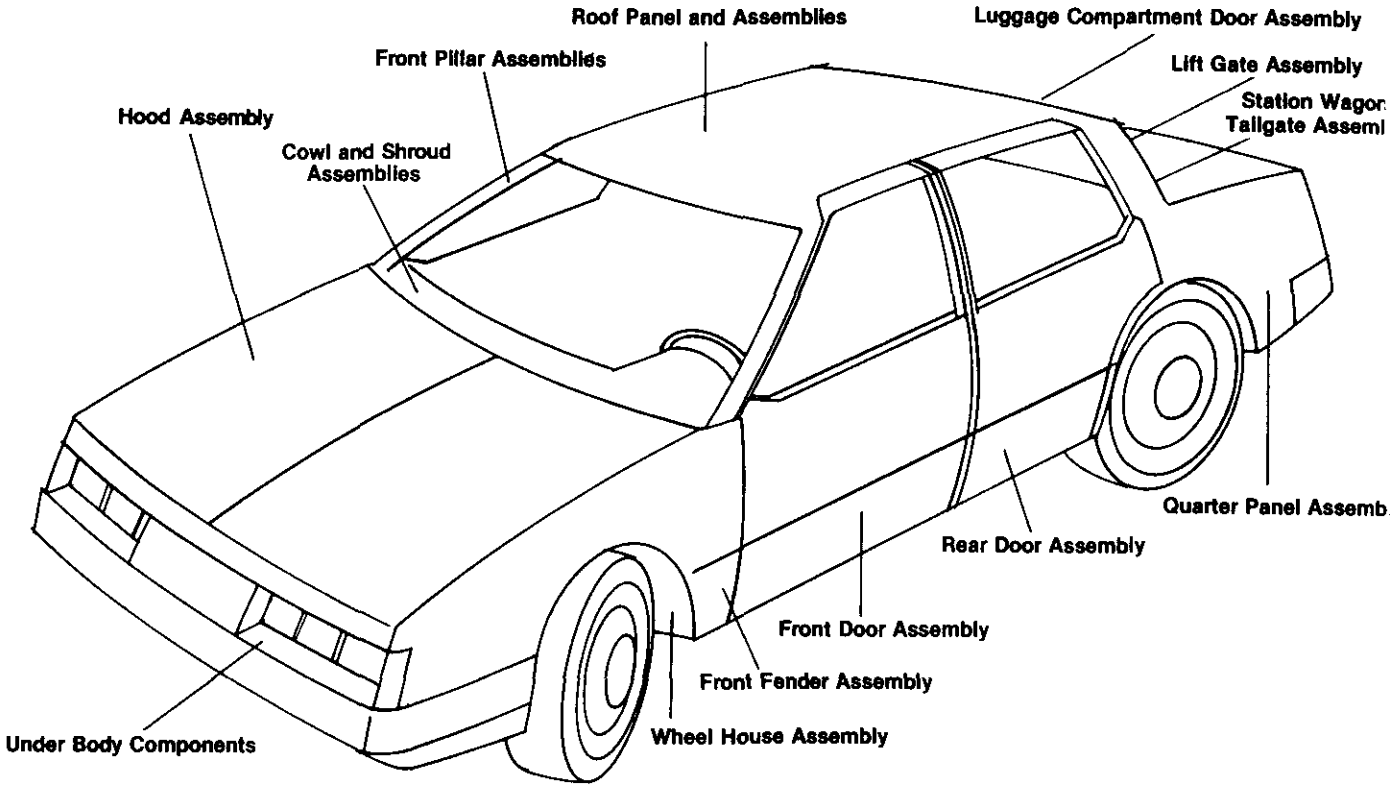
The Budd Stamping Plant . . . where personalized attention to detail, quality craftsmanship and a cooperative labor-management team complement sophisticated machinery to produce new dimensions in manufacturing excellence.

Robert A. Bitting

Robert A. Bitting

Plant Manager

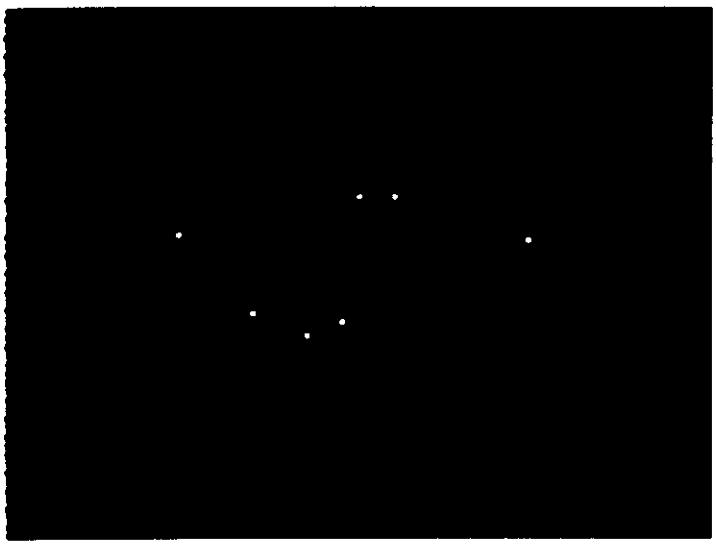
The Budd Philadelphia plant provides for the automotive industry.



Robotics Spot Welding Application

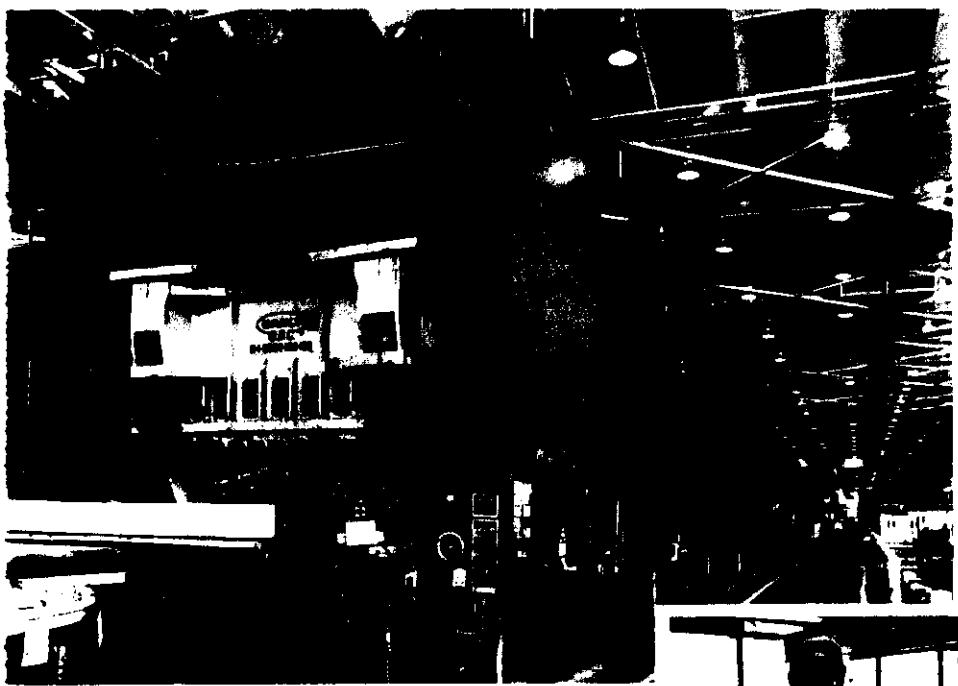
Robotics Mastic Application

;cise, quality stampings and assemblies



Laser Inspection

Coordinate Measuring Inspection



Today's state-of-the-art technology has improved our assembly line operation by increasing the production efficiency and satisfaction of the craftsman and professionals involved in the manufacturing process. Quality control lasers and cameras check every assembly produced for precise accuracy and fit. Digital computerized inspection systems ensure stampings meet all critical dimensions. And highly skilled technicians monitor and operate this impressive array of machinery expanding technological horizons to meet the challenges of the future.

Stamping Plant

Small Machine Area

Coordination Fixtures

PLANT FACTS

PEOPLE

Total employees	2900
Management	9%
Skilled	31%
Hourly	56%
Salaried	4%
Employee Involvement Grps.	21

Union Affiliations

UAW Local 757 — Technical, Office, & Professional Workers

UAW Local 813 — Shop Production & Maintenance

PRODUCTS

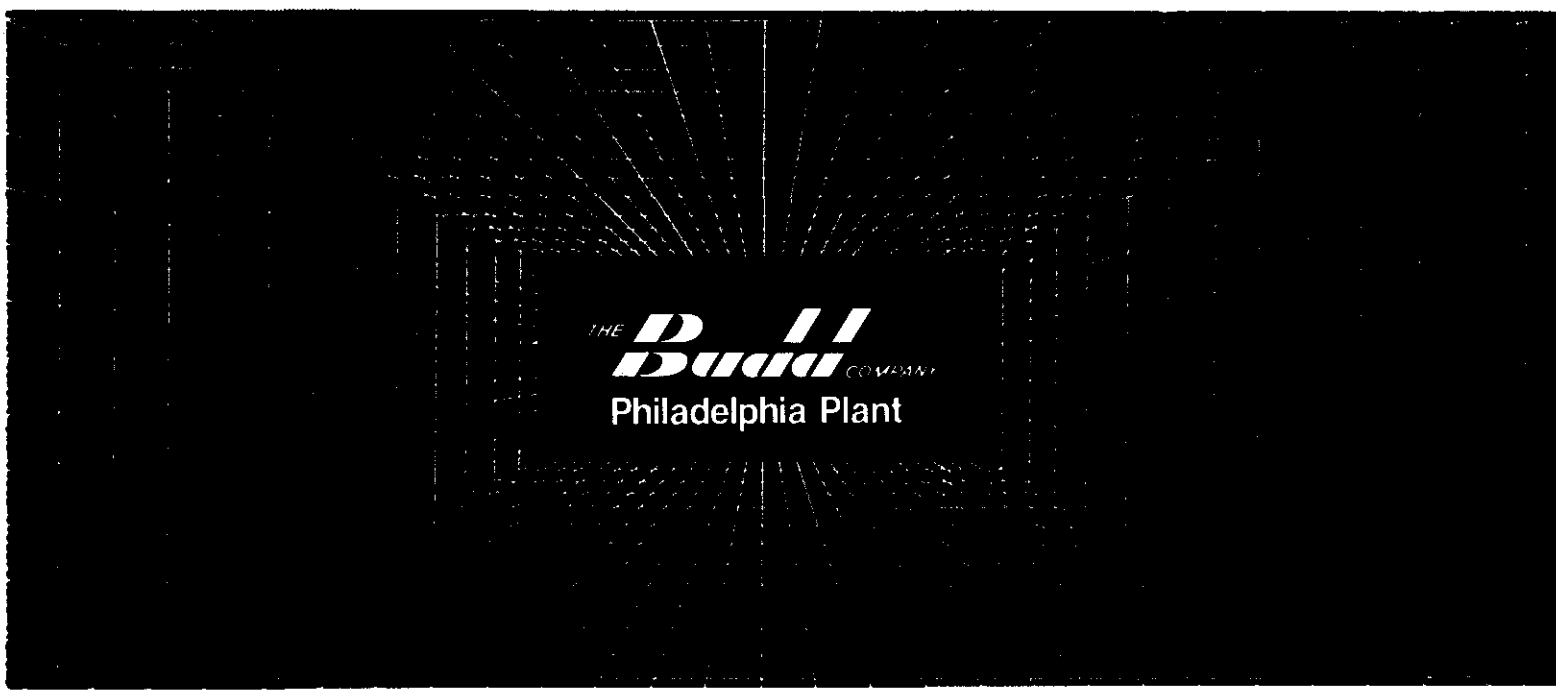
- Ford Escort Station Wagon Liftgate
- Ford Mustang Liftgate
- Ford Taurus/Sable Station Wagon Quarter Panels and Liftgate
- Ford Econoline
- Ford Lincoln
- Ford Bronco I
- Ford Bronco II
- Ford "L" Cab
- Tools, dies, fixtures
- Contract machining
- Ford Mercury
- Ford Flare
- Ford Open Driveway
- Ford Aerostar Doors
- Ford Camper
- Chrysler Floor Pans Step Sill Assemblies
- GMC Suburban Side Panels
- GM Reinforcements

FACILITIES

Land:	70.5 Acres 28.53 Hectars
Buildings:	30
Floor space:	2.5 million sq. ft. 234,103 sq. mtrs.
# of press lines:	19 major lines
# of presses:	253
Press capacity:	60 ton to 3,000 ton
Major press size:	96" to 300"
# Overhead Cranes:	69
Crane Capacity:	1 to 50 Ton
# Fork Trucks:	138
Fork Truck Capacity:	2 to 60 Ton

2450 Hunting Park Ave.
Philadelphia, PA 19132
(215) 221-7200

THE Budd COMPANY



THE BUDD COMPANY
FRAME DIVISION • RED LION PLANT • RED LION & VERREE ROADS • PHILADELPHIA, PENNSYLVANIA 19115

November 12, 1980

Mr. Michael T. Scornavacchi
Corporate Marketing Manager, STABATROL
1000 Conshohocken Road
P. O. Box 578
Norristown, Pa. 19404

Dear Mr. Scornavacchi:

The industrial waste described in Attachment "A" is the result of an accumulation over the years between 1942 and 1964. During this time, the Plant was engaged in basic sheet steel fabrication type work using stainless steel and carbon steel in the manufacture of railway cars and chassis frames for automobiles.

The waste which is of a solid nature, to the best of our knowledge, consists of soil which has absorbed or become mixed with waste oils and lubricants, paint residue from drip-off areas and paint spray booths, & miscellaneous debris from demolition work. The paint residue probably contained some zinc type primers, oil type enamels, and asphalt base primers. The major constituent of this waste is soil which has been contaminated by the above materials.

BC: T. Davenport
R. Farley
H. Foster
J. Roth
W. Wilson, Sr.

HHW/kc

Very truly yours,

THE BUDD COMPANY

H. H. Wolf / Dr. T. Ward

Per. Stub attrol
11/18/80

THE BUDD COMPANY

Philadelphia, Pennsylvania

INDUSTRIAL PROCESS DESCRIPTION

The industrial process that generated the waste materials for disposal was operated between the years of 1942 to 1964. This particular process is no longer in use. During this time the plant process included the following:

A) BASIC STEEL FABRICATION FOR:

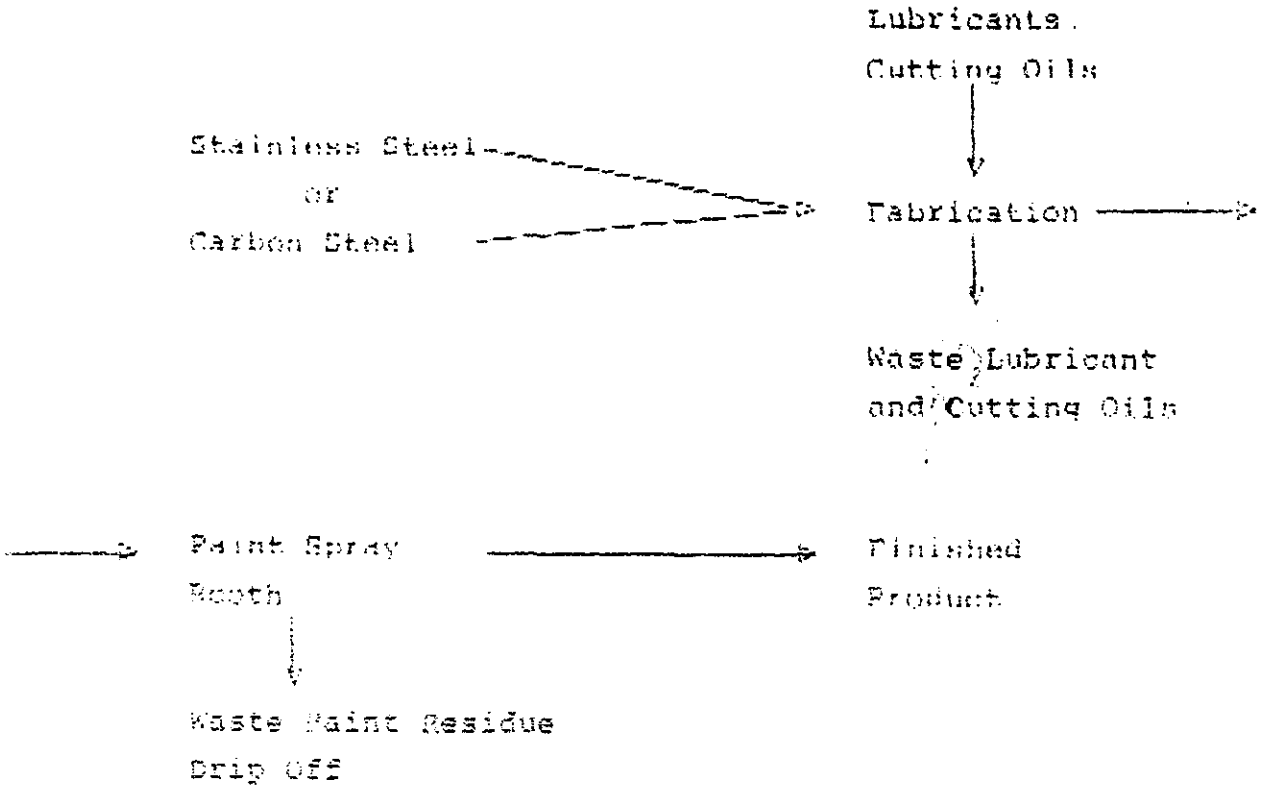
1. Railway Cars
2. Chassis Frames for Automobiles

B) THE PRIMARY MATERIALS UTILIZED IN THESE PROCESSES WERE:

1. Carbon Sheet Steel
2. Stainless Steel
3. Cutting Oils
4. Lubricants
5. Paint

The following flow diagram illustrates the general description of waste flow:

FLOW DIAGRAM



The waste in question is basically contaminated soil which has become mixed with the waste oils, lubricants and paint residues, as they were handled for disposal in those years previously mentioned. The paint residue is from the paint spray booth drip off areas. The paint probably accounts for some zinc, since these were the type of primer paints used. Also oil based enamel paints were used and later asphalt based primer paints were utilized.

With regard to the oils, certain PCB based oils were used during this time due to their non-flamability during certain high temperature work. However, all of the high PCB wastes (>50 ppb) have already been removed, and what remains is only slightly contaminated, as can be seen from the analysis.

The waste soil is approximately 97 percent solid and has only 1.34 percent oil/grease. Also performed were organic analysis scan on a GC/MS of the soil sample, where in one base neutral extractable was found, namely dioctyl phthalate and certain volatile organics, namely 1,1 oxybis ortane, 3 hydroxylamine derivatives and 3 hydrocarbon derivatives, all very small in quantity. These probably are due to the cutting oil and certain paint (asphalt and enamel) residues present in the waste.

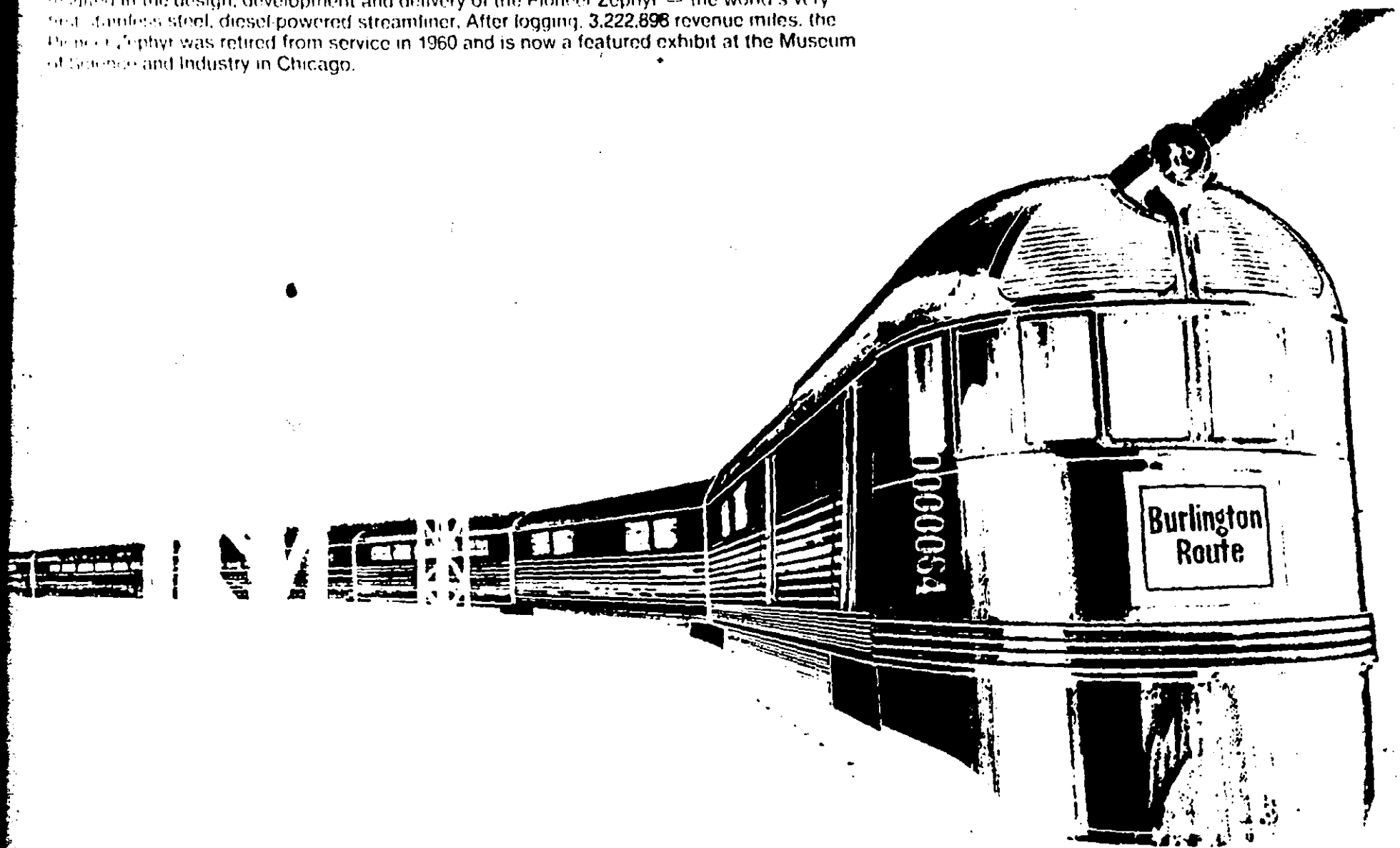
Since there is so little organic present, incineration is out of the question in that even the physical appearance of the dirt does not indicate the contaminants are present.

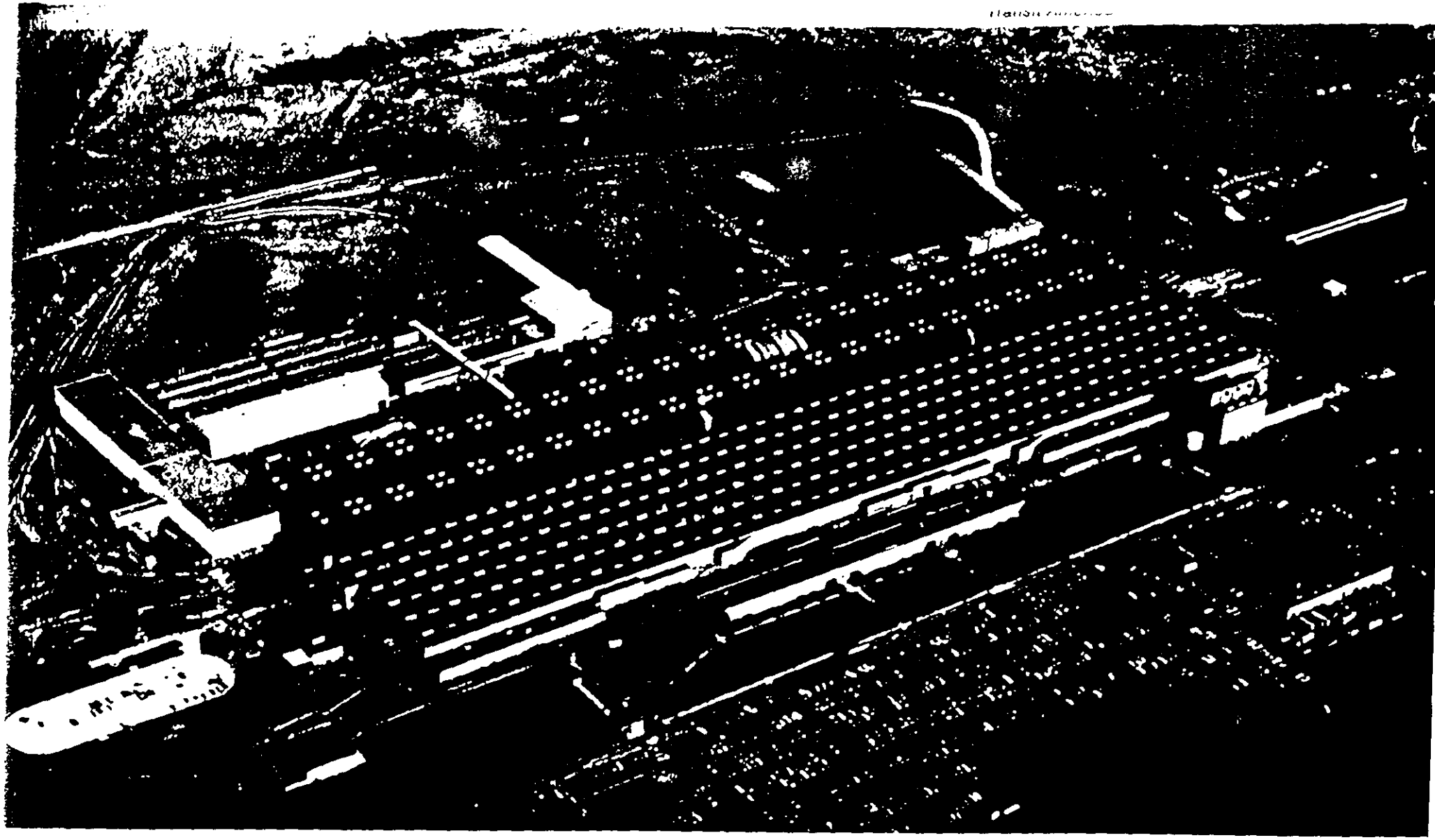
The process and the paints and oils have not been in use for 15 years, so a more specific or detailed description is not readily available. This disposal is for a <u>one-time clean-up</u> and the waste slated for disposal will not be generated by Budd again as an on-going process.

Transit America . . . A New Company with a Proud Heritage

[illegible] century of innovation and technological leadership in the passenger rail car [illegible] stands behind Transit America Inc. Formerly the Transit Division of The Budd [illegible] became a separate, wholly-owned subsidiary of Thyssen AG of Duisburg, [illegible] Germany, Budd's parent firm, on January 1, 1985.

Our unparalleled track record dates from 1931 when Budd began experimenting with the use of stainless steel in the construction of railway passenger cars. By 1934, this had resulted in the design, development and delivery of the Pioneer Zephyr -- the world's very first stainless steel, diesel-powered streamliner. After logging 3,222,898 revenue miles, the Pioneer Zephyr was retired from service in 1960 and is now a featured exhibit at the Museum of Science and Industry in Chicago.





The Express Success in Railcar Technology and Innovation Continues

Following a family of Zephyrs came a host of well-known trains in American rail history — the Rockets, the Silver Meteors, Flying Yankee, El Capitan, the Chief and Super Chief, Crusader, San Diegan, Empire Builder and many more. We have continued to set the pace in railcar technology and design, producing thousands of subway and surface transit, commuter and inter-city cars for service throughout the world.

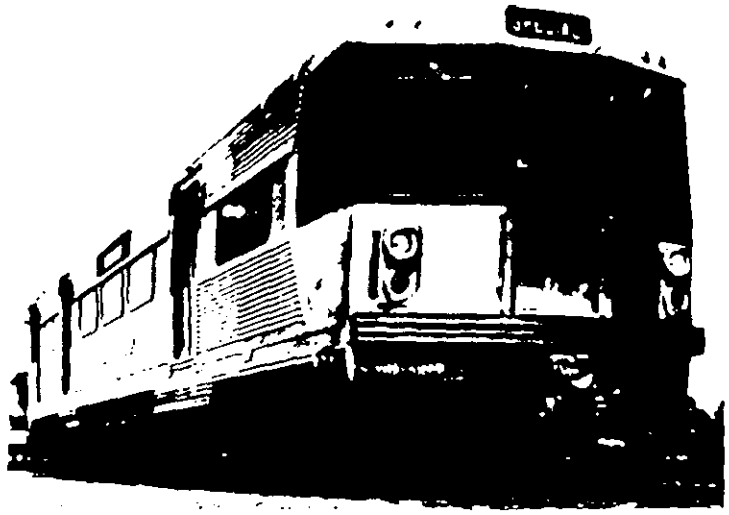
The original Metroliner trains as well as over 1500 other railcars that comprise the backbone of Amtrak's fleet came from our plant in Philadelphia. We introduced disc brakes to the industry, and later our Pioneer-III trucks. And we designed and developed the SPV-2000, a unique self-propelled vehicle that will conserve energy and operating costs into and beyond the year 2000.

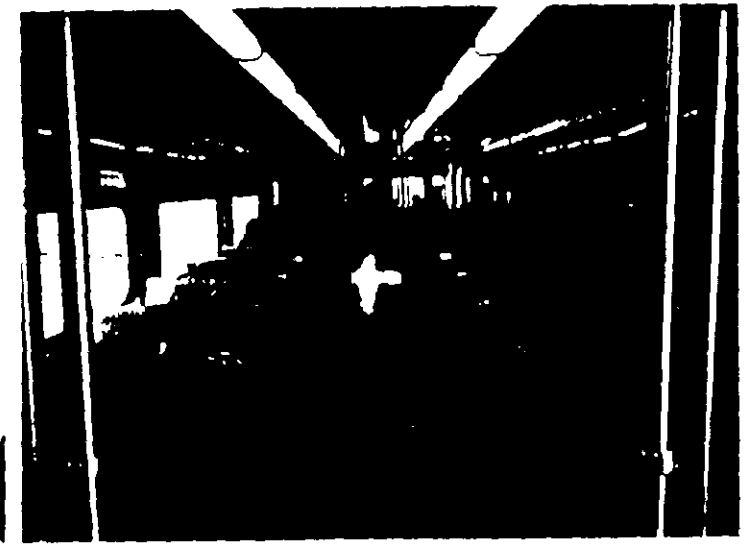
During the past decade, we have delivered more stainless steel vehicles in the U.S. than any other builder. To date, Transit America and our affiliated companies have built well over 11,000 passenger railcars . . . and we're still on track and counting.

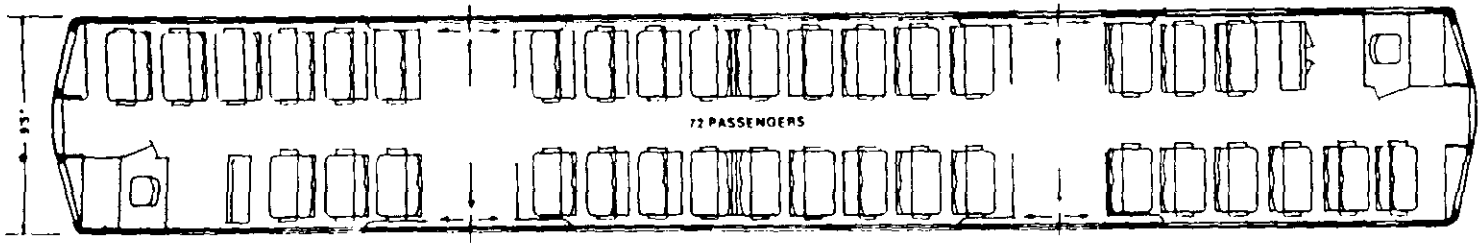
The following pages illustrate the scope of our capabilities.

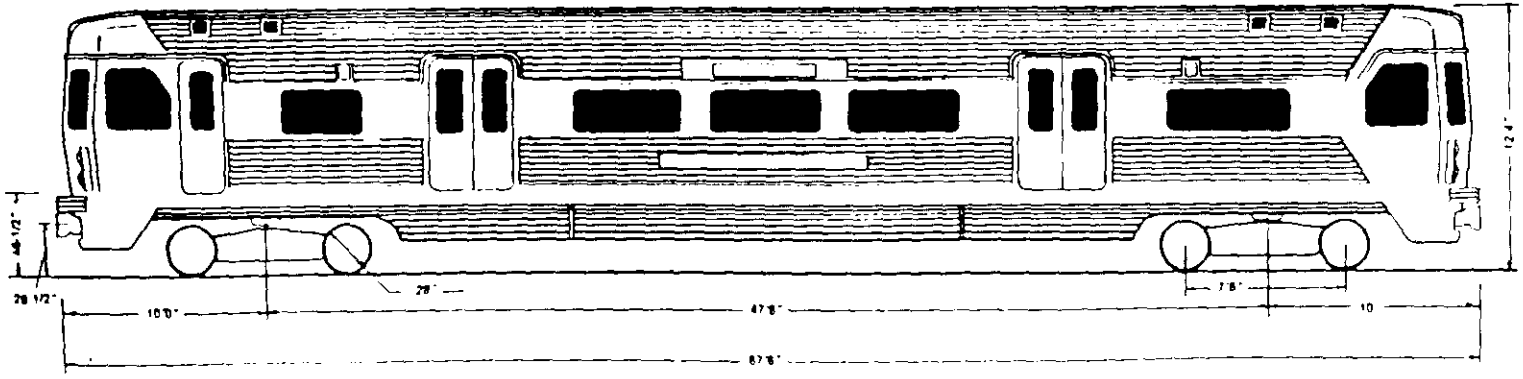
Making Mass Transit Better . . .
The Philadelphia/New Jersey PATCO High-Speed Line

The PATCO High-Speed Line features state-of-the-art stainless steel cars engineered and built for passenger comfort and safety, and is one of the most modern and cost-efficient mass transit systems in the United States. The line, the first to be automated and computer monitored, whisks passengers from Lindenwold and other southern New Jersey communities across the Delaware River into center-city Philadelphia.









SPECIFICATIONS

LENGTH	67'-8"	(20.5 M)
WIDTH	9'-5"	(2.87 M)
WEIGHT	74,500 lbs.	(33,793 KG)
SEATS	72-80	
POWER	600 VDC	
SPEED	75 mph	(120 KM/H)
QUANTITY	75	
ACQUISITION	1968-69	

Commuters on the PATCO High-Speed Line between Lindenwold, N.J. and Philadelphia can board a train to their destination every 8 to 10 minutes and arrive quickly, comfortably and safely . . . thanks to Transit America innovation.

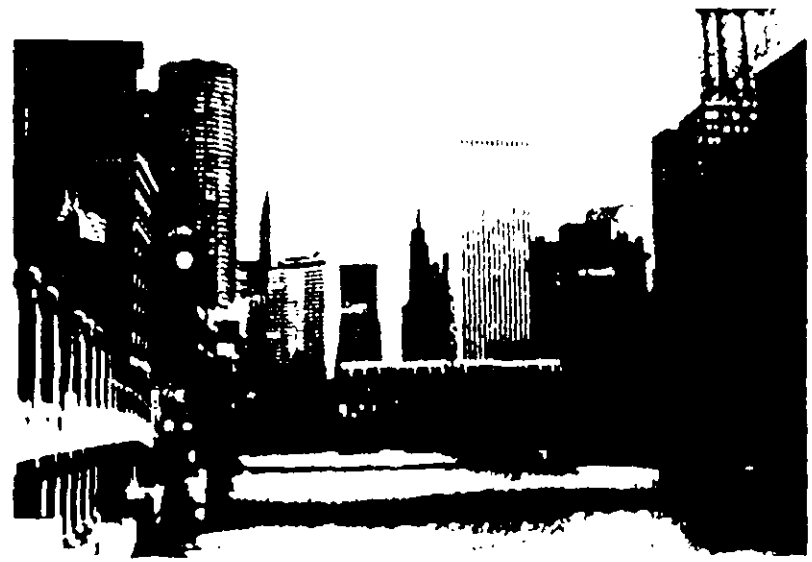
B 0000057

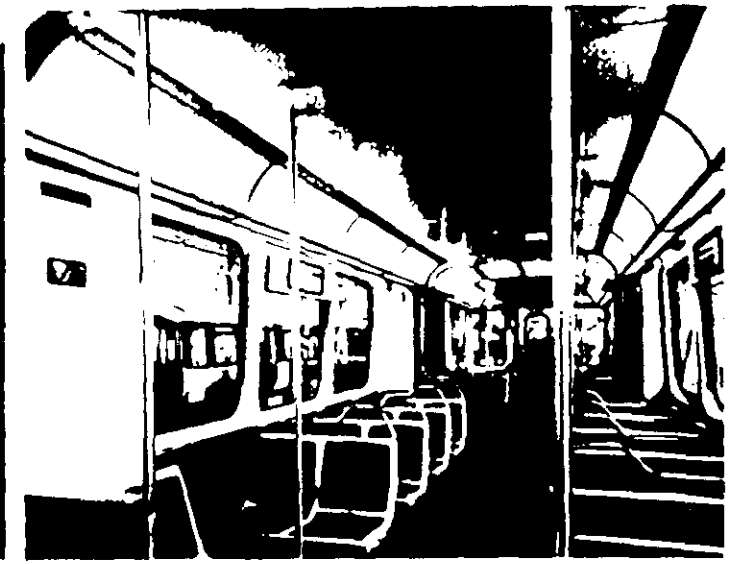
Transit America in the Windy City

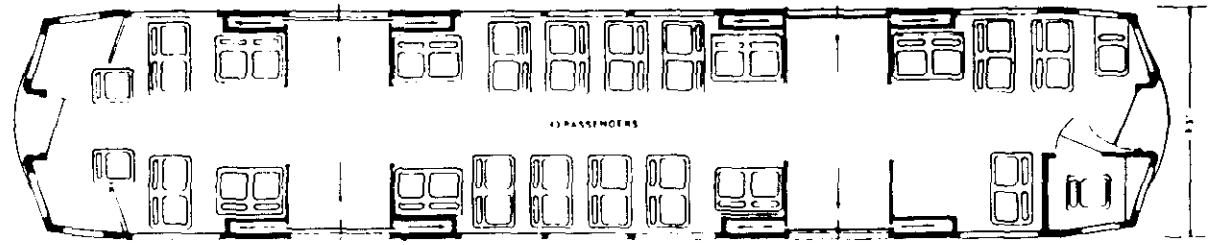
We are playing a major role in the revitalization of the Chicago rapid transit system by supplying 600 new stainless steel cars for the Chicago Transit Authority. All of them are expected to be in service by the end of 1986, bringing the number of transit vehicles built by us for the CTA to 750. The attractive red-, white- and blue-striped cars are designed to reduce CTA operating and maintenance costs while maximizing passenger comfort and safety.

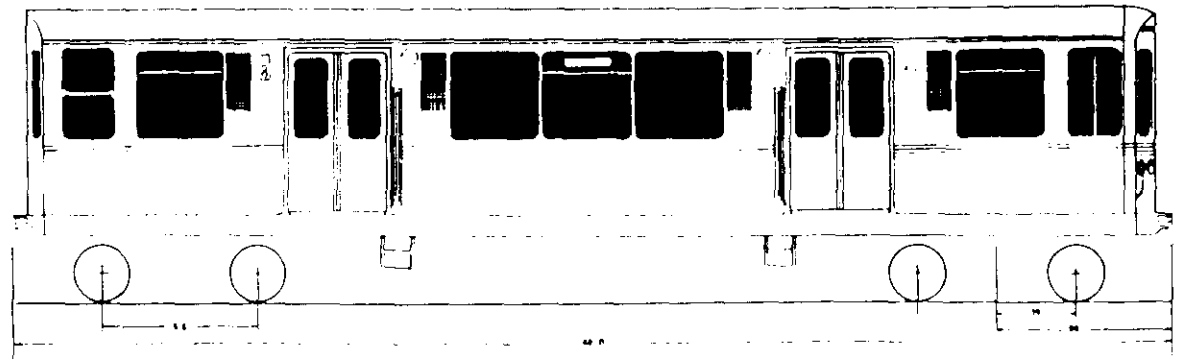
SPECIFICATIONS

LENGTH	48'-0"	(14.6 M)
WIDTH	9'-3"	(2.82 M)
WEIGHT	52,300 lbs.	(23,723 KG)
SEATS	43	
POWER	600 VDC	
SPEED	70 mph	(112 KM/H)
QUANTITY	600	
ACQUISITION	1981-86	

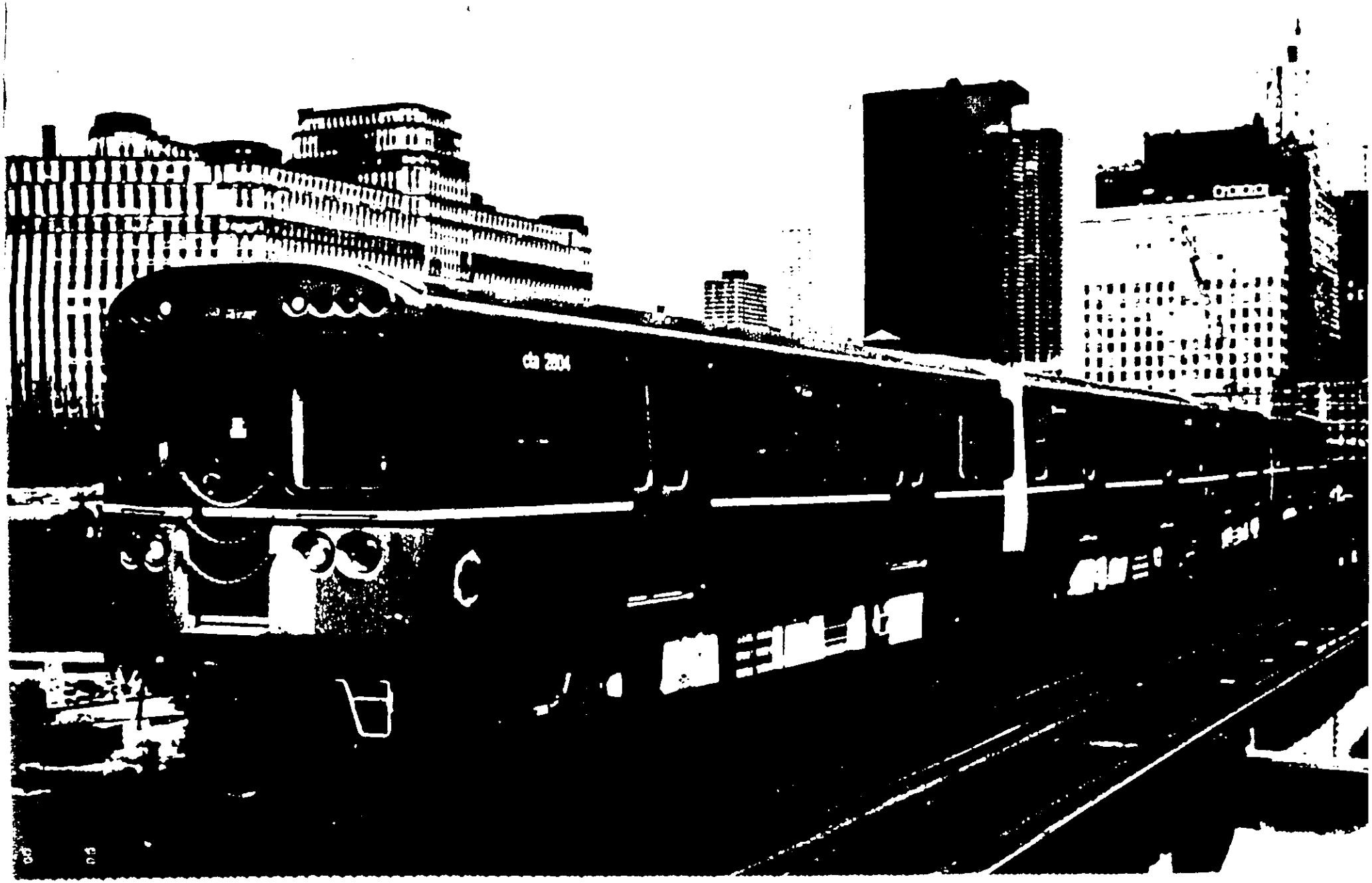








The colorful CTA cars have sliding doors designed for ample clearance and ease of boarding. Inside, seats have padded cushions in contoured fiberglass shells for comfort and durability.



100 Cars for Baltimore . . .

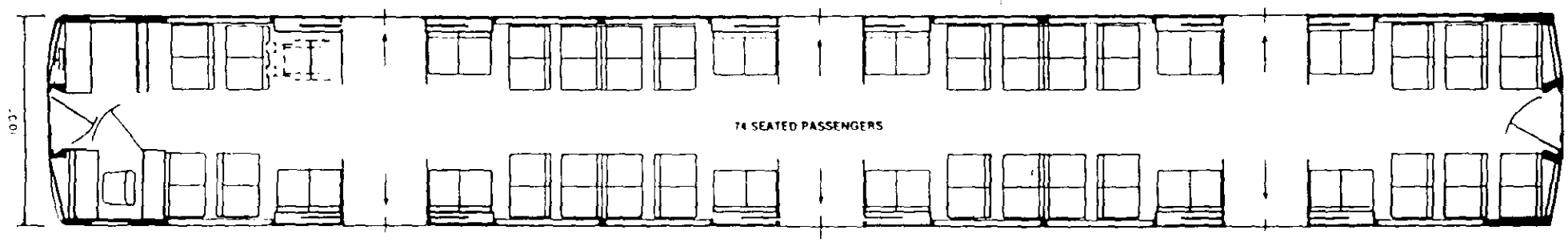
Baltimore's new subway/elevated transit system is receiving 100 modern, high-speed rapid transit cars — 72 for its already completed Section A and 28 more for Section B scheduled to open in 1987. These state-of-the-art vehicles, which operate in married pairs, feature chopper motor control as well as on-board, microprocessor-controlled ATC and ATO systems.

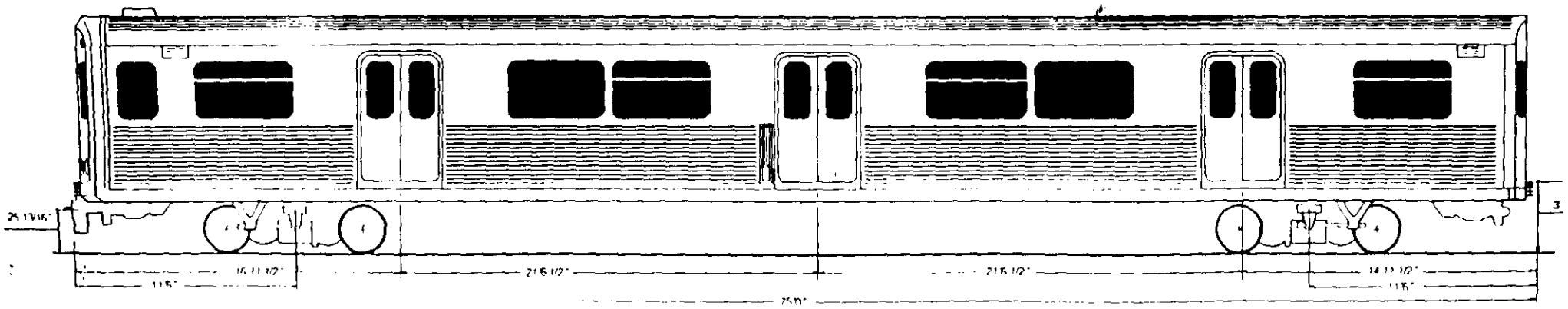
B0000070

SPECIFICATIONS

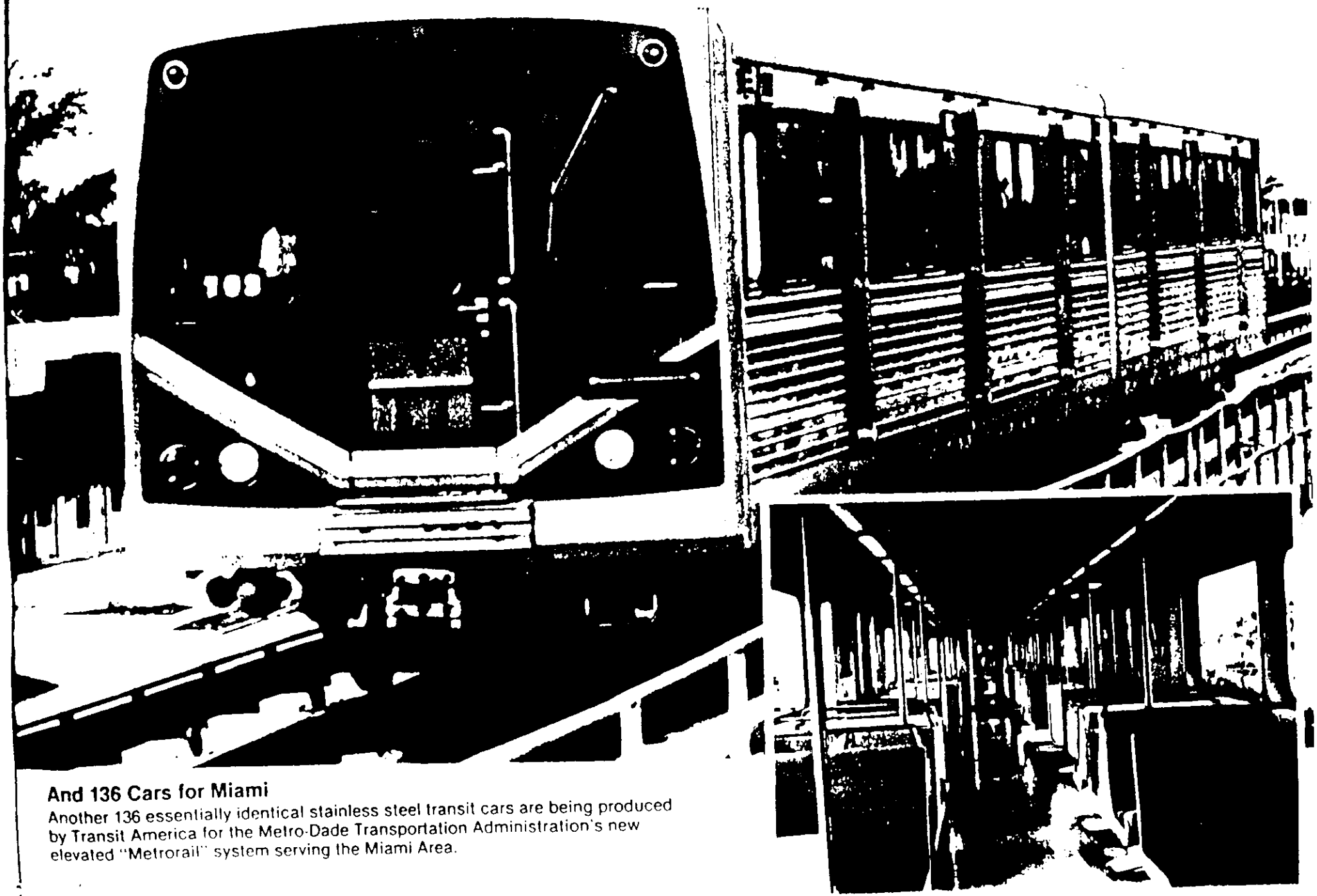
LENGTH	75'-0"	(22.9 M)
WIDTH	10'-3"	(3.12 M)
WEIGHT	76,600 lbs.	(34,745 KG)
SEATS	74	
POWER	700 VDC	
SPEED	75 mph	(120 KM/H)
QUANTITY	236	
ACQUISITION	1982-85	

Baltimore Car





B 0000071



And 136 Cars for Miami

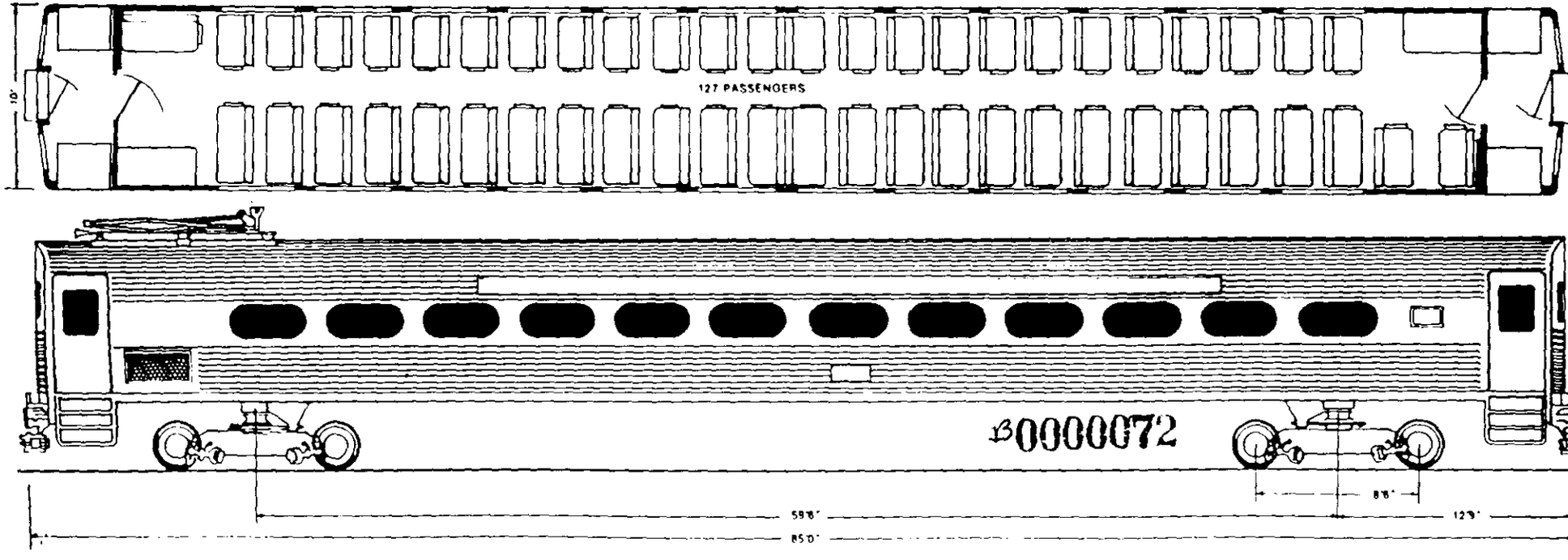
Another 136 essentially identical stainless steel transit cars are being produced by Transit America for the Metro-Dade Transportation Administration's new elevated "Metrorail" system serving the Miami Area.

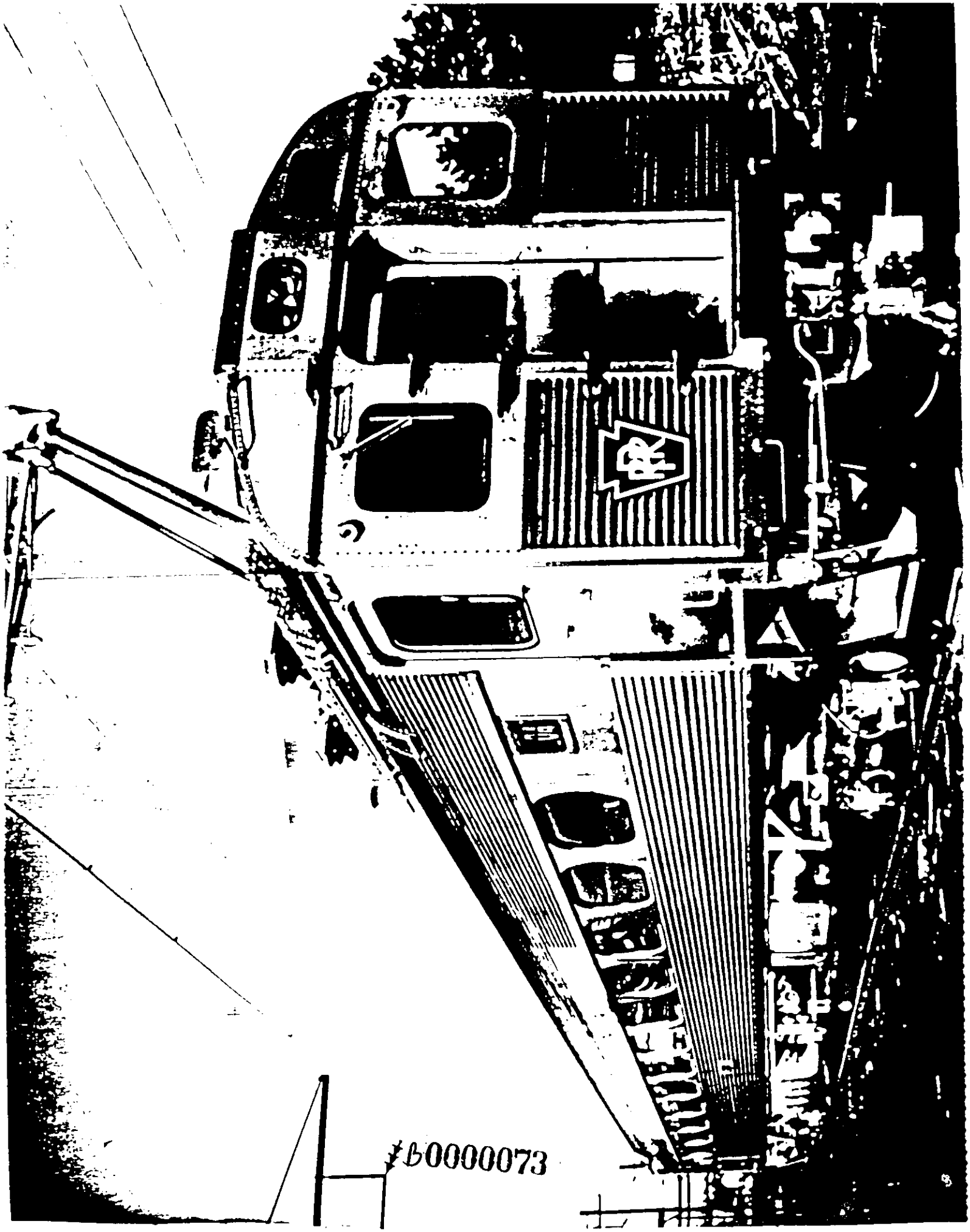
The Silverliner . . . Shining Star of the old Pennsylvania Railroad Now Serves SEPTA

From the early 60s and continuing right up to today, the Silverliners are real workhorses. These electric coaches helped usher in a new era of speed and comfort on many of the commuter lines serving the Philadelphia area. We welcome an opportunity to adapt this beautiful railcar to fit your system's requirements.

SPECIFICATIONS

LENGTH	85'-0"	(25.9 M)
WIDTH	10'-0"	(3.05 M)
WEIGHT	101,400 lbs.	(45,995 KG)
SEATS	127	
POWER	11,000 VDC	
SPEED	85 mph	(136 KM/H)
QUANTITY	59	
ACQUISITION	1963	




B0000073

New York Commuter and Rapid Transit Cars

Transit America is big in New York. Over the last two decades, we have designed and built over 1,800 transit and commuter cars for the New York City Transit Authority (NYCTA) and the Metropolitan Transportation Authority (MTA). All told, these cars carry about three million passengers every workday . . . about one billion per year. We welcome the opportunity of producing railcars for New York, and stand ready to meet your needs as well.

LENGTH	60'-6"	(18.4 M)
WIDTH	10'-2⅝"	(3.1[illegible] M)
WEIGHT	[illegible]	[illegible] KG)
SEATS	50	
POWER	600 VDC	
SPEED	50 mph	(80 KM/H)
QUANTITY	600	
ACQUISITION	1964-65	

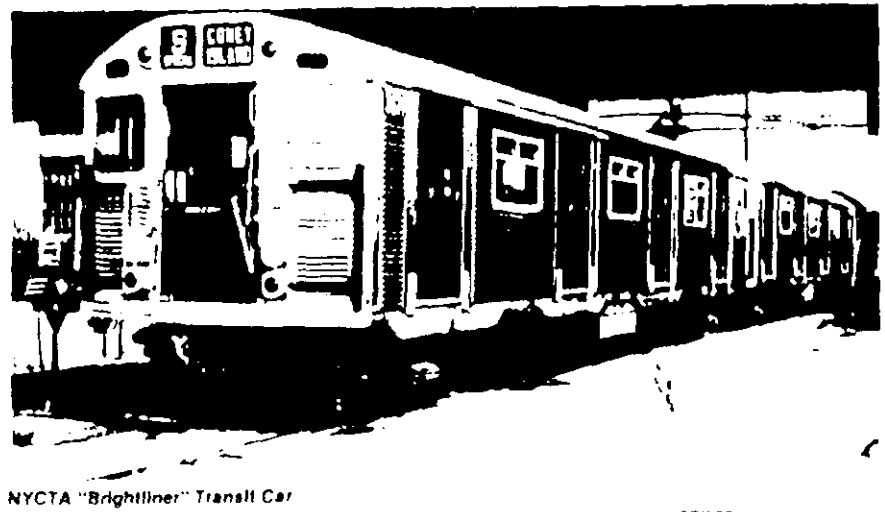
SPECIFICATIONS (First MTA Order)

LENGTH	85'-0"	(25.9 M)
WIDTH	10'-6"	(3.20 M)
WEIGHT	91,200 lbs.	(41,368 KG)
SEATS	114	
POWER	650 VDC	
SPEED	100 mph	(160 KM/H)
QUANTITY	950	
ACQUISITION	1968-73	

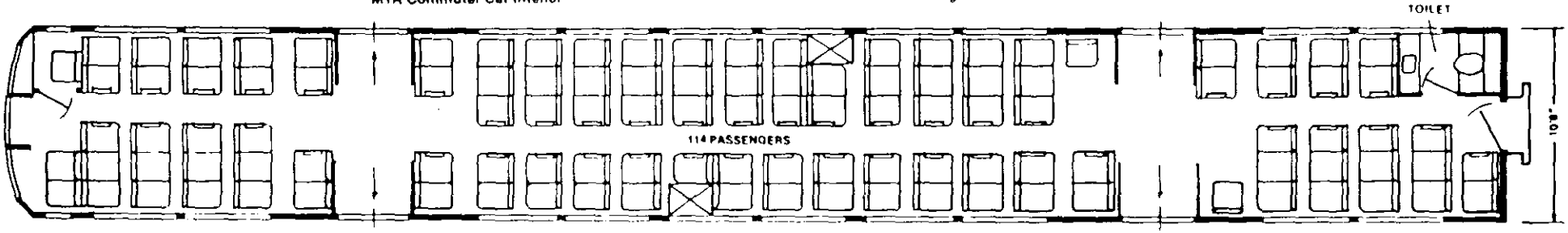
(Second MTA Order)

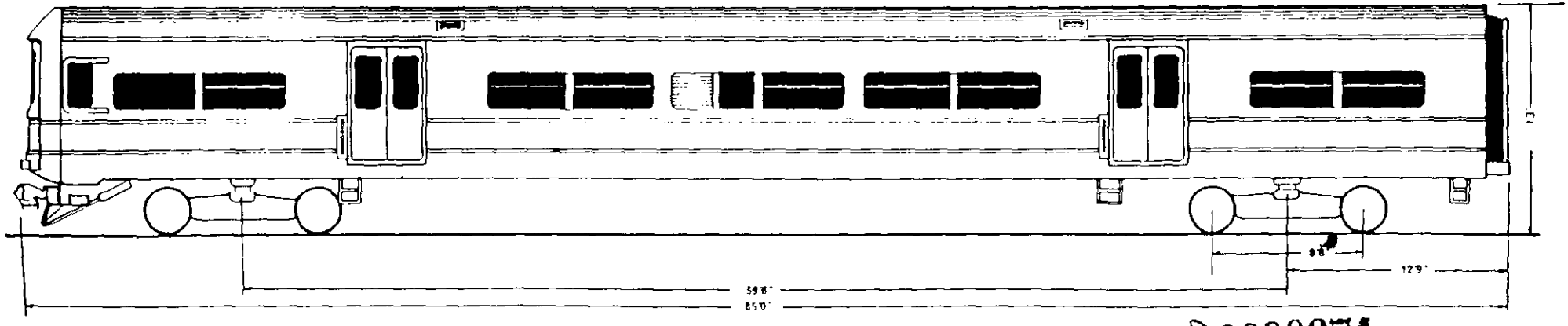
LENGTH	85'-0"	(25.9 M)
WIDTH	10'-6"	(3.20 M)
WEIGHT	109,500 lbs.	(49,664 KG)
SEATS	114-120	
POWER	650 VDC	
SPEED	100 mph	(160 KM/H)
QUANTITY	316	
ACQUISITION	1982-85	

MTA Commuter Car Interior



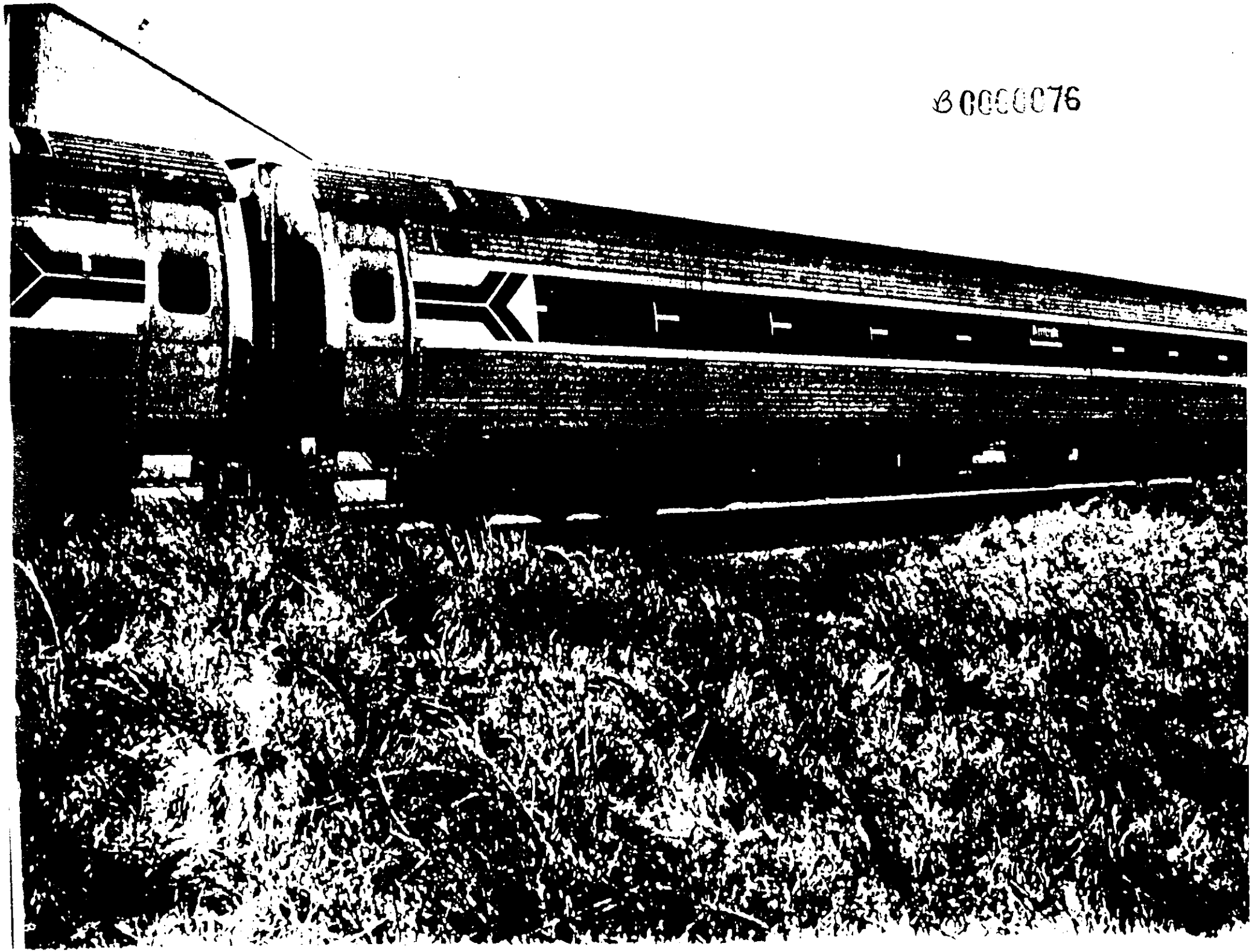
NYCTA "Brightliner" Transit Car





More than 1,000 electric powered commuter vehicles have been delivered to New York's Metropolitan Transportation Authority.

B0000075

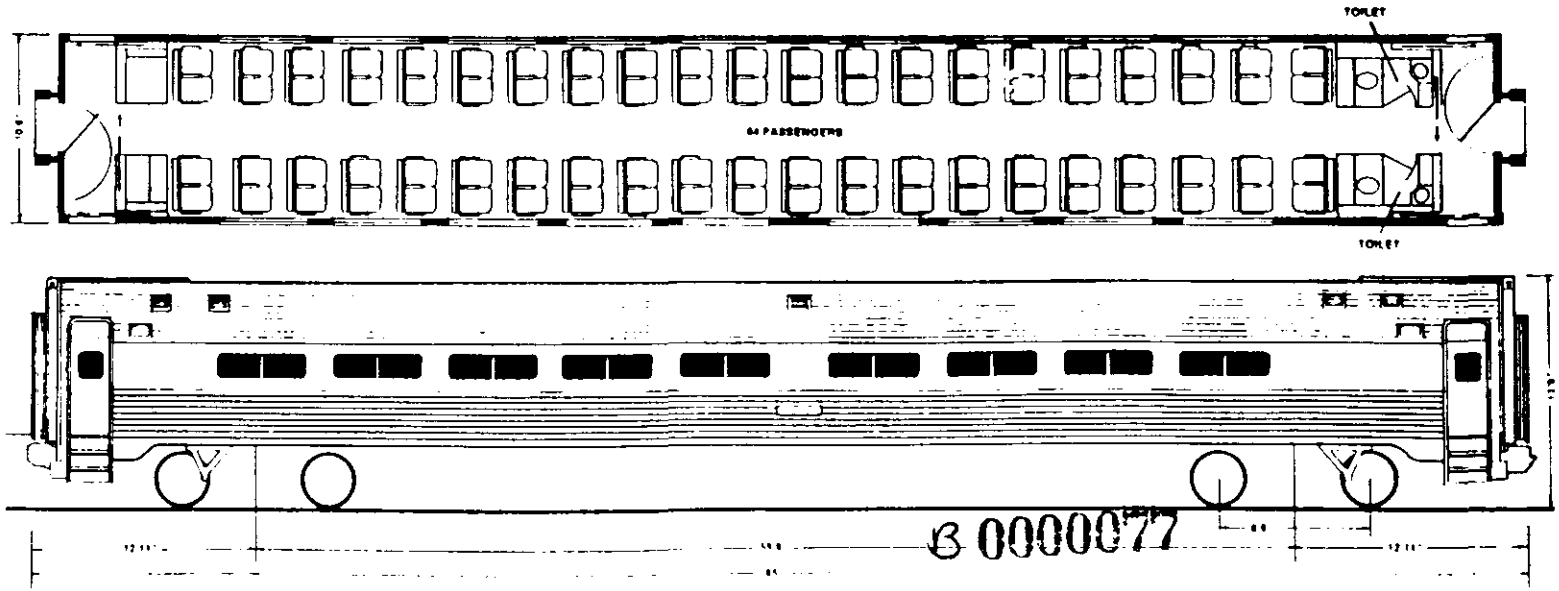

B 0000076

On Track with Amtrak

It's no wonder that we have played a leading role in the revitalization of our nation's passenger railway system by supplying Amtrak with most of its modern railcars such as the Amfleet I. Including vehicles acquired from other railroads when the system was formed, we have produced nearly 75% of the active Amtrak fleet.

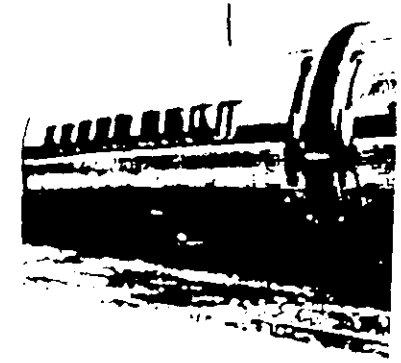
SPECIFICATIONS

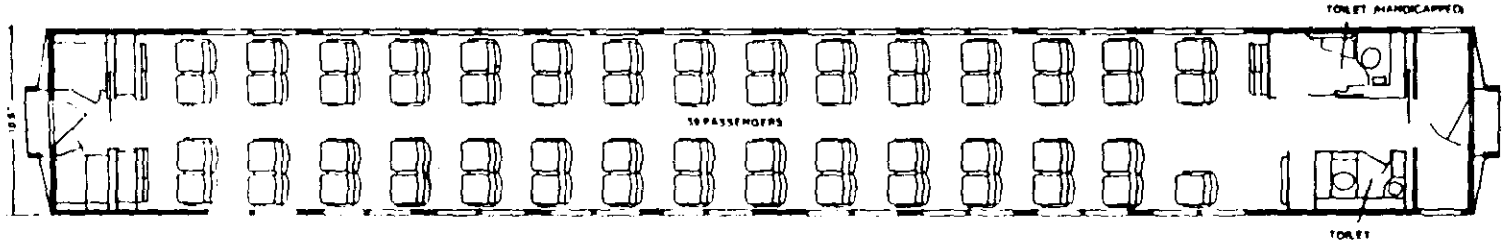
LENGTH	85'-0"	(25.9 M)
WIDTH	10'-6"	(3.20 M)
WEIGHT	106,000 lbs.	(48,081 KG)
SEATS	84	
POWER	Locomotive	
SPEED	125 mph	(201 KM/H)
QUANTITY	492	
ACQUISITION	1975-77	

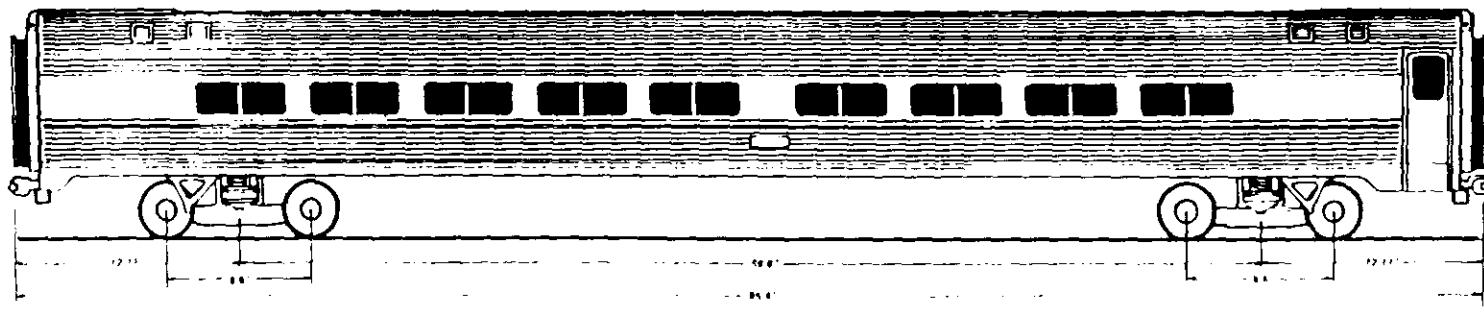


Amfleet II . . . The Second Generation

Another 150 new railcars for Amtrak were recently completed at our Red Lion plant in Philadelphia. Designated Amfleet II, this second generation passenger vehicle is designed for cross-country travel in greater comfort. The new cars — 125 coaches and 25 cafe/lounges — provide more leg room and a more comfortable flat seatback design plus larger windows and a variety of other improvements.



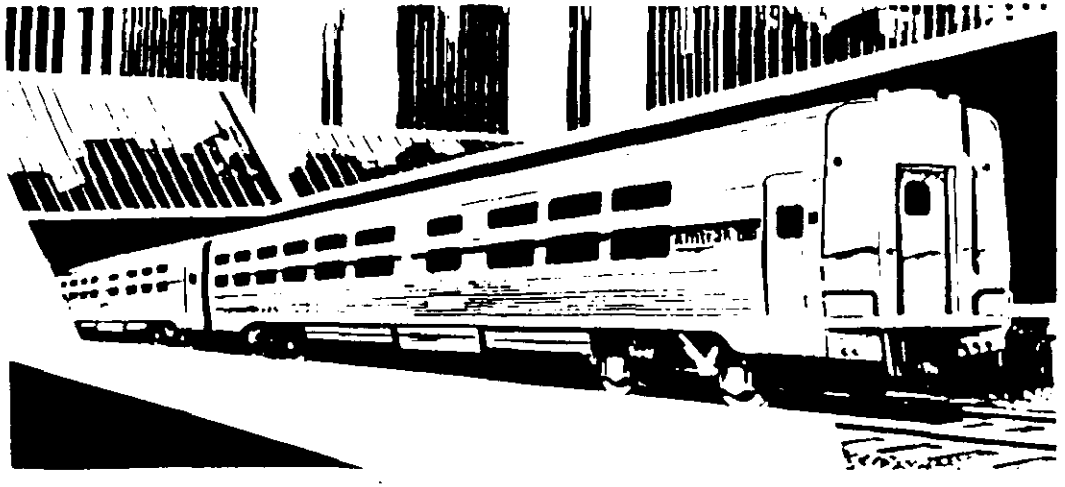




B0000078

SPECIFICATIONS

LENGTH	85'4"	(26.0 M)
WIDTH	10'6"	(3.20 M)
WEIGHT	106,600 lbs.	(48,354 KG)
SEATS	59	
POWER	Locomotive	
SPEED	125 mph	(201 KM/H)
QUANTITY	150	
ACQUISITION	1982-83	



Prototype Shells for New Amfleet Cars

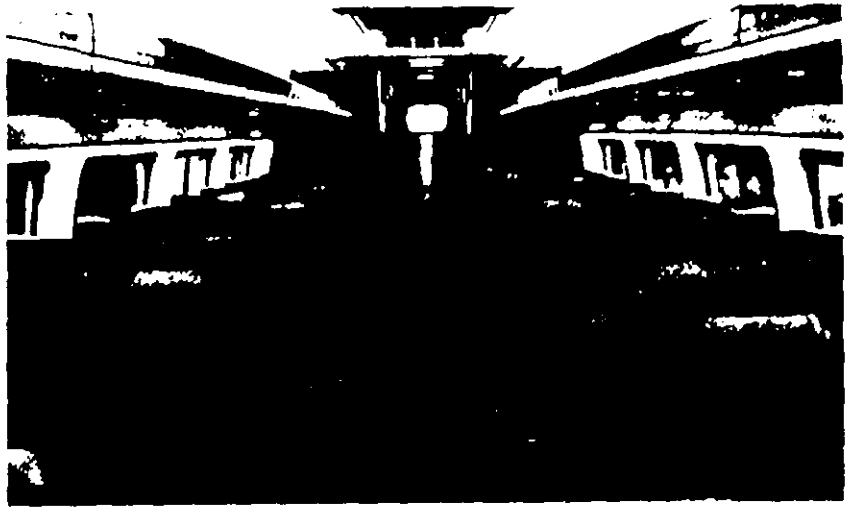
Amtrak has selected Budd, our sister company, to produce three prototype carbody shells to serve as models for its next generation of single-level long-distance passenger railcars.

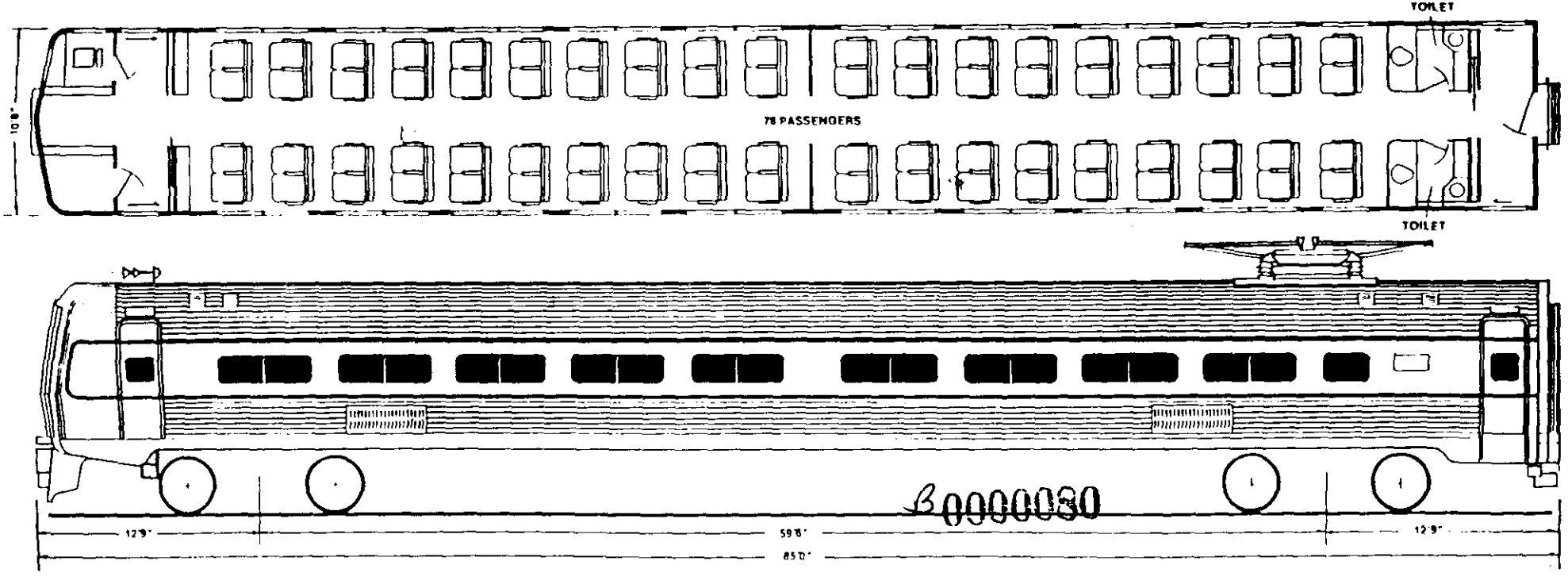
Being assembled at the Budd Technical Center using structural components fabricated by Transit America, they are scheduled for delivery in 1985 to Amtrak's Beech Grove, Ind., maintenance facility where they will be completed and outfitted. The prototype — two sleeping cars and one diner — will undergo two years of revenue service testing and evaluation on long-haul runs before full production begins.

B 0000079

The Metroliner . . . Designed to Run at 160 MPH

We are proud to have designed and built the original Metroliners that ran between New York and Washington, D.C. These high-speed electric trains with their tapered, streamlined coaches, predate the Japanese "Bullet" trains and the French TGV. After being tested at 165 mph, they operated on the Northeast Corridor for many years at just 110 mph due to roadbed limitations. They are now in Amtrak service between New York, Philadelphia and Harrisburg.



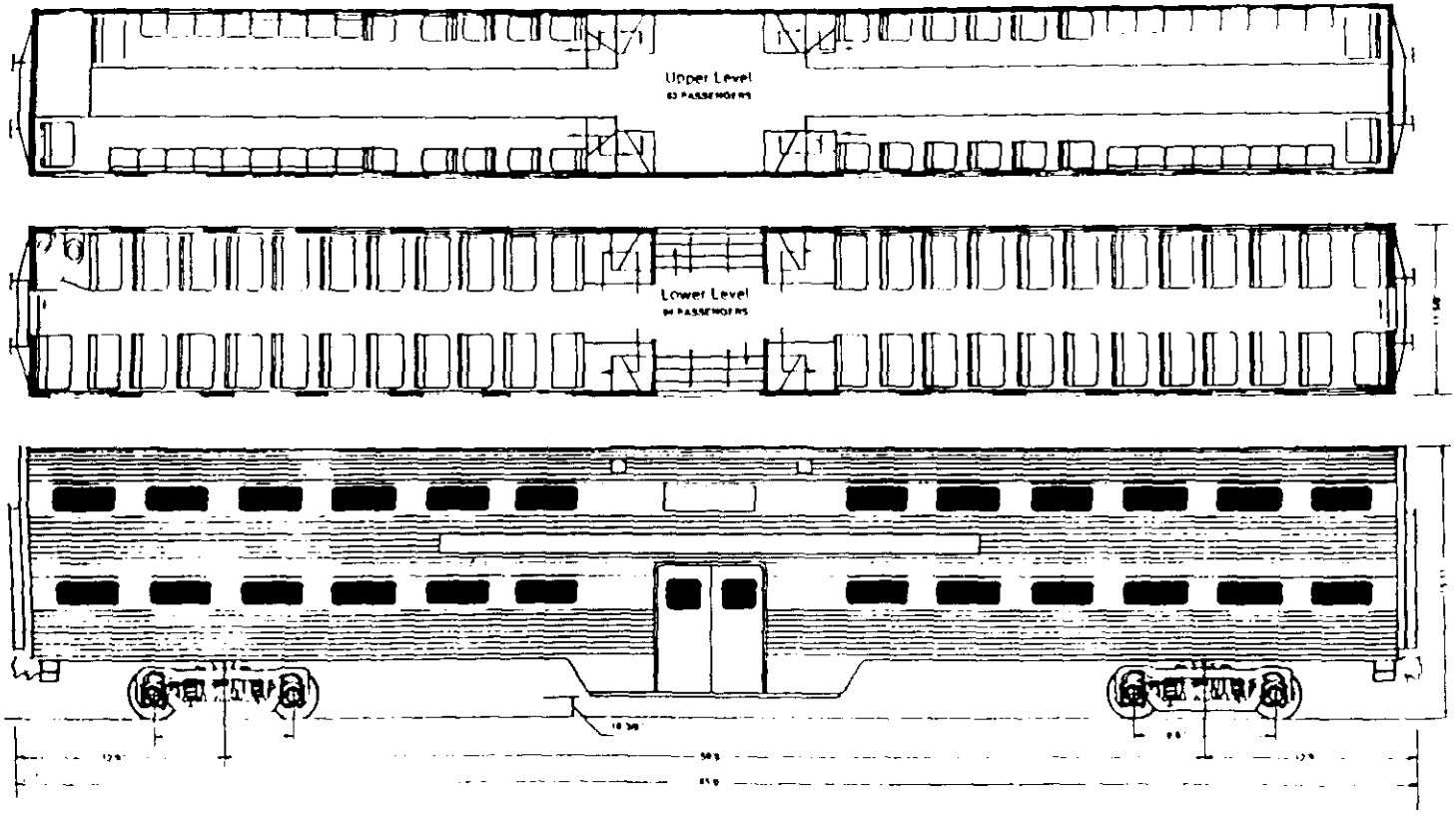


SPECIFICATIONS

LENGTH	85'-0"	(25.9 M)
WIDTH	10'-6"	(3.20 M)
WEIGHT	154,560 lbs.	(70,108 KG)
SEATS	34-76	
POWER	11,000 VDC	
SPEED	160 mph	(256 KM/H)
QUANTITY	61	
ACQUISITION	1968	

Gallery Commuter Car . . .
The High-Density, Low-Cost-Per-Seat Vehicle

The bi-level gallery commuter car is another of our successful rail innovations. We have built 399 of these cars for service in the Chicago area. Gallery cars offer an unusual but highly practical high-density seating *arrangement. They have two decks with twin seats on both sides of the aisle* on the lower level . . . and two rows of single seats on the upper.



SPECIFICATIONS

LENGTH	85'-0"	(25.9 M)
WIDTH	11'-5/8"	(3.37 M)
WEIGHT	107,000 lbs.	(48,535 KG)
SEATS	149-157	
POWER	Locomotive	
SPEED	100 mph	(160 KM/H)
QUANTITY	399	
ACQUISITION	1950-80	

B0000082

The gallery car is both popular and practical. The upper deck is open the entire length of the car so that the conductor can collect tickets from the lower level. With a seating capacity for 149 to 157 passengers, this is the lowest cost-per-seat car on the rails today.

B 0000083

The SPV-2000

One of our more recent introductions is the SPV-2000 . . . truly a state-of-the-art advancement in railcar technology. This self-propelled, energy-efficient, diesel-powered passenger vehicle can be tailored for all types of service from mainline to commuter. It can be built as a standard car geared for sustained speeds up to 80 mph, or in a higher speed version with turbo-charged engines.

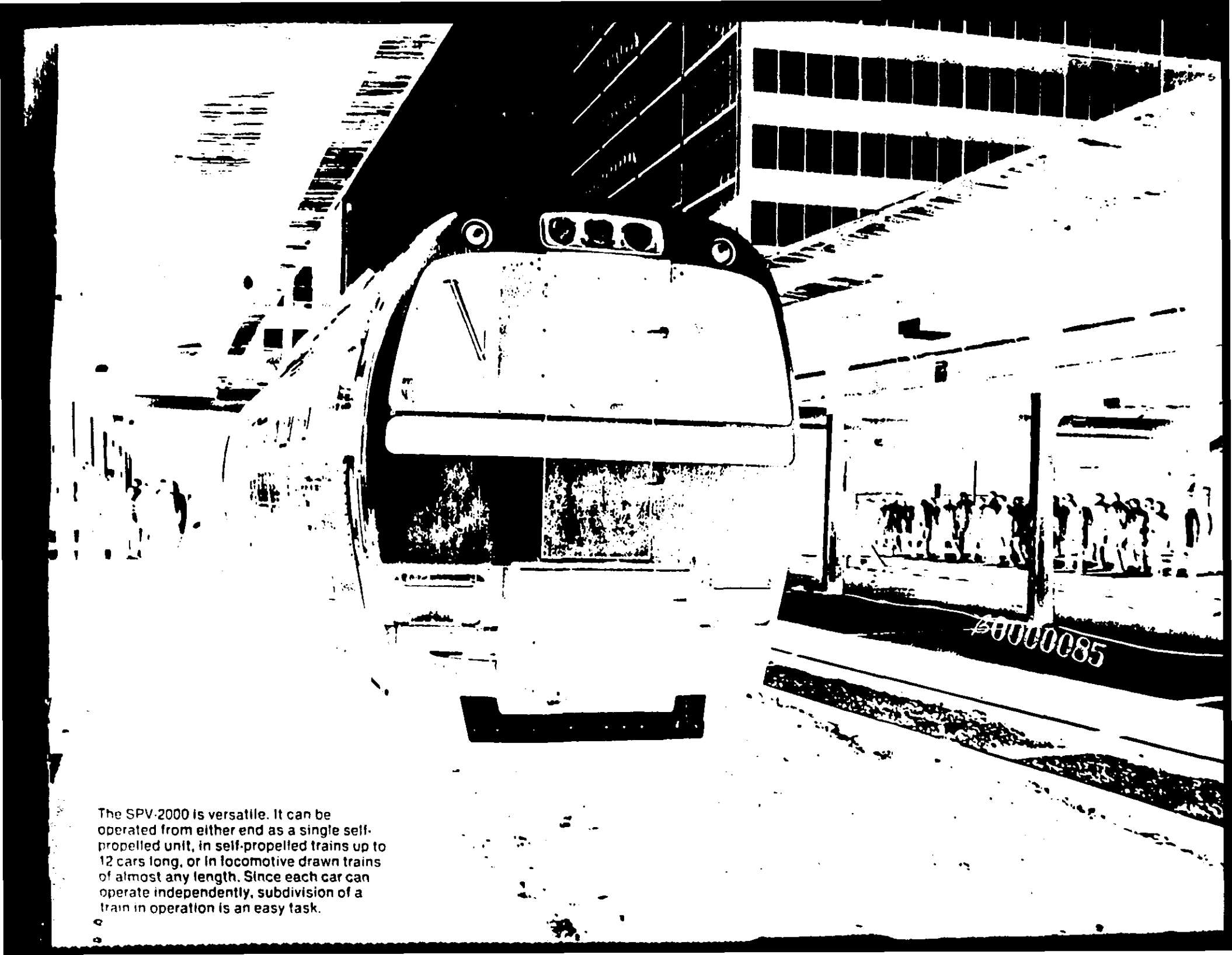
SPECIFICATIONS

LENGTH	85'-4"	(26.0 M)
WIDTH	10'-6"	(3.20 M)
WEIGHT	127,000 lbs	(57,607 KG)
SEATS	86-108	
POWER	Diesel Engines	
SPEED	80-120	(128-192 KM/H)

CUSTOMERS

Federal Railroad Adm.	1
Country of Morocco	6
Conn. Dept. of Trans.	13
N.Y. Metro. Trans. Auth.	10

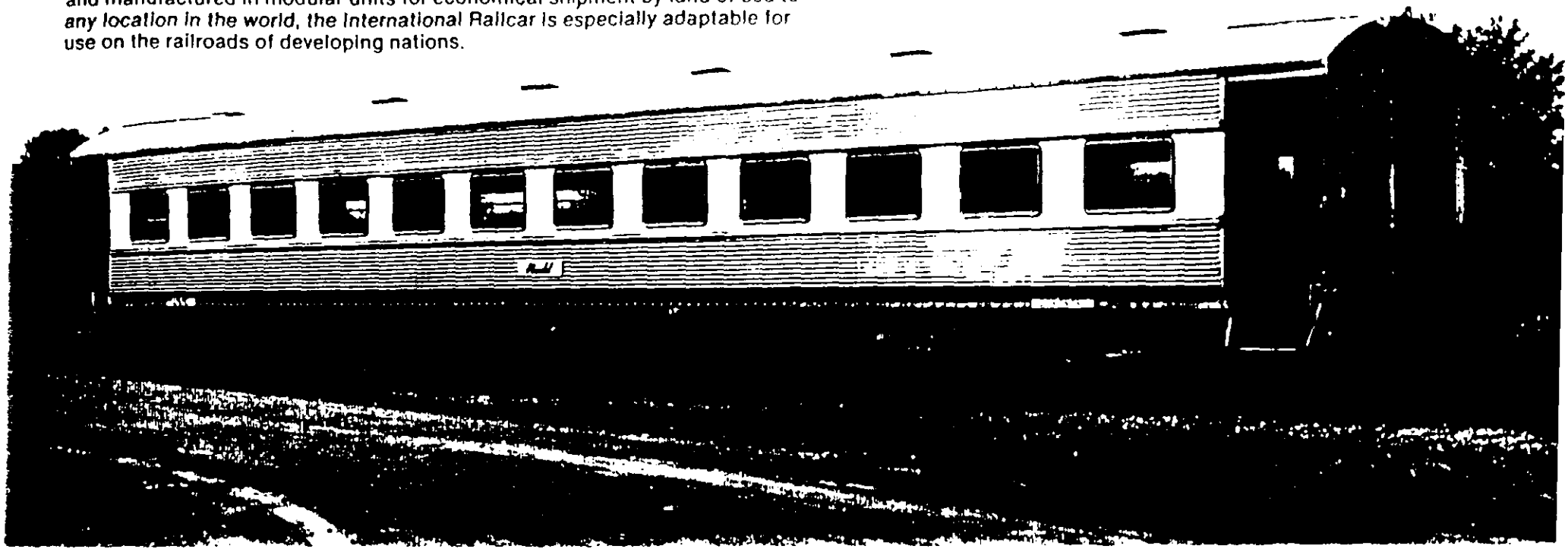
B 0000084

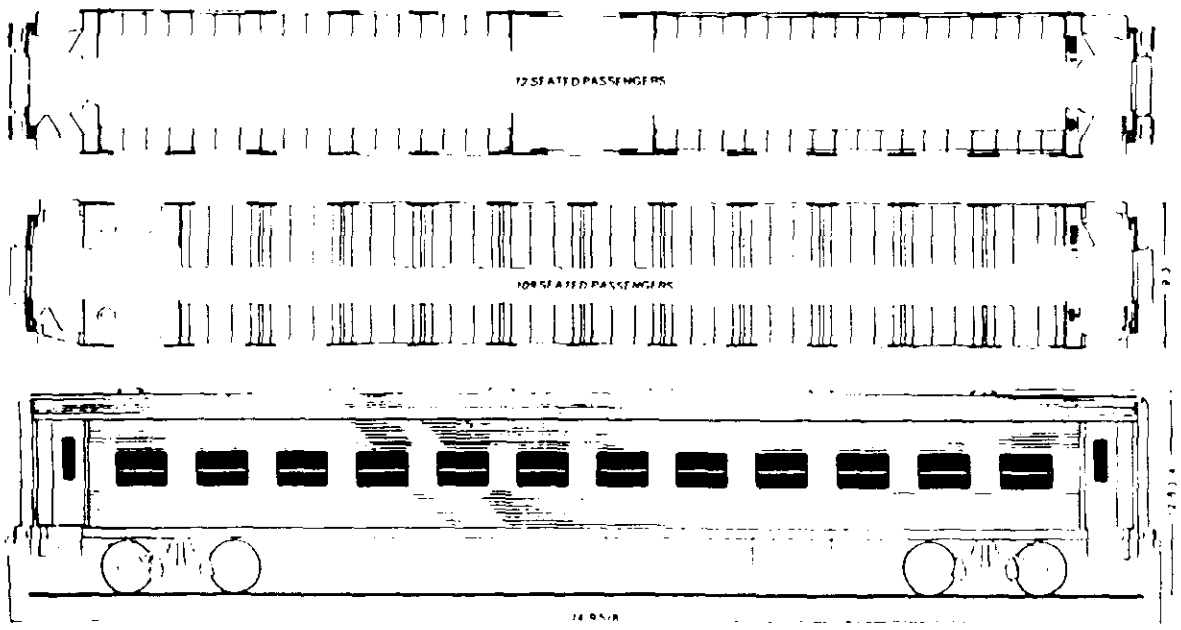


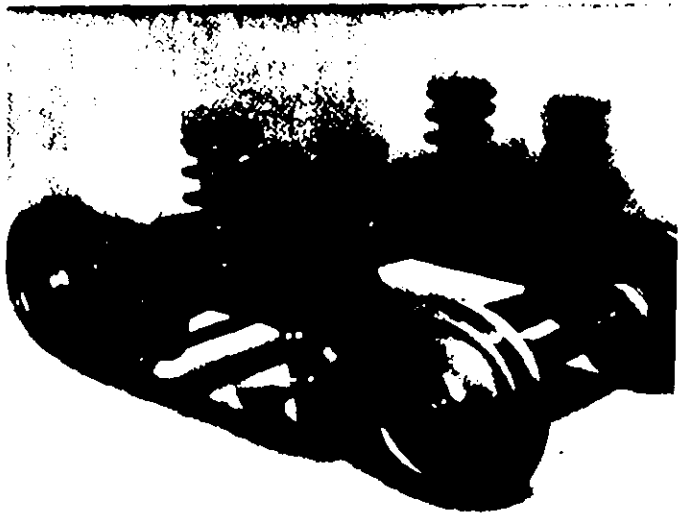
The SPV-2000 is versatile. It can be operated from either end as a single self-propelled unit, in self-propelled trains up to 12 cars long, or in locomotive drawn trains of almost any length. Since each car can operate independently, subdivision of a train in operation is an easy task.

IRC . . . Modular Wonder for the World

The International Railcar is a high-quality, low-cost stainless steel passenger coach designed for quick, easy assembly from kits by local labor. Engineered and manufactured in modular units for economical shipment by land or sea to *any location in the world, the International Railcar is especially adaptable for* use on the railroads of developing nations.







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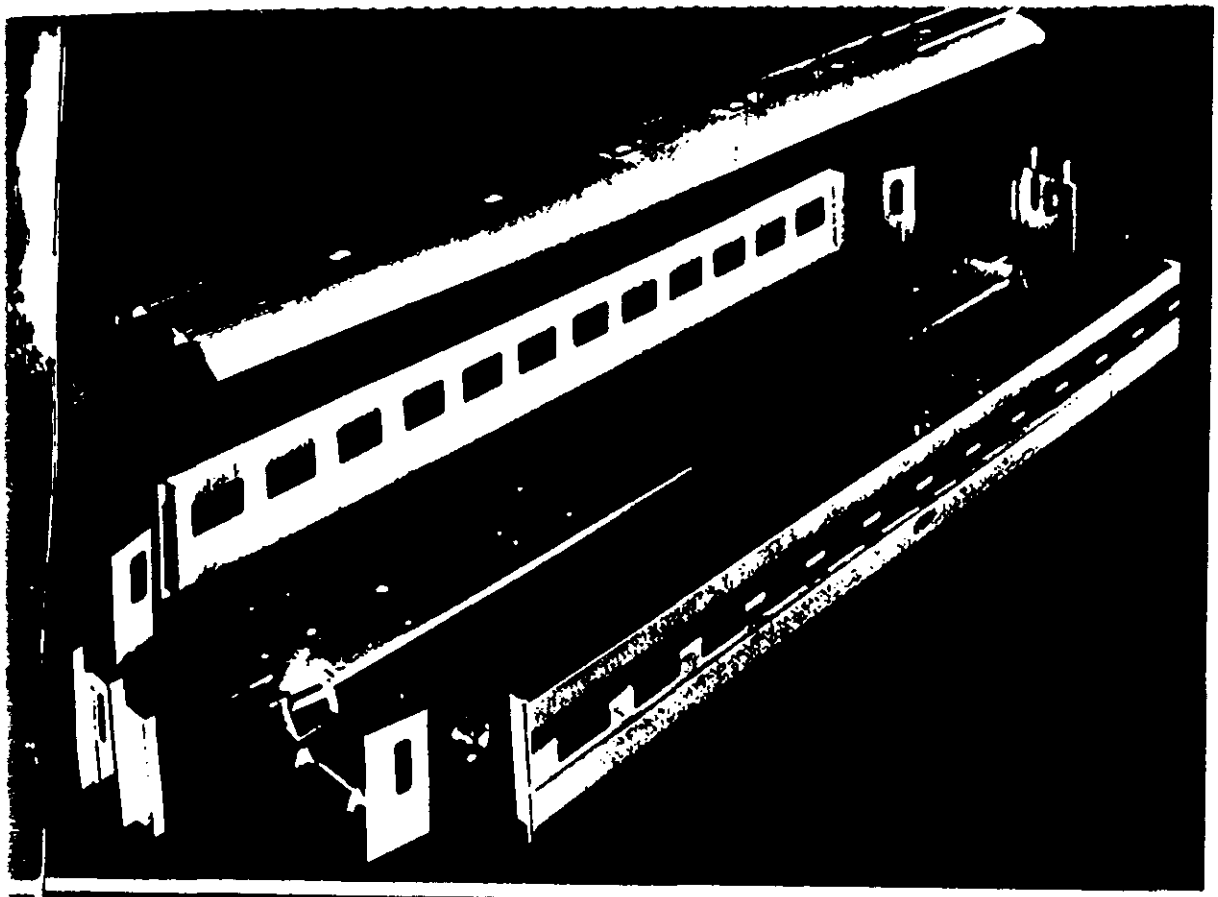
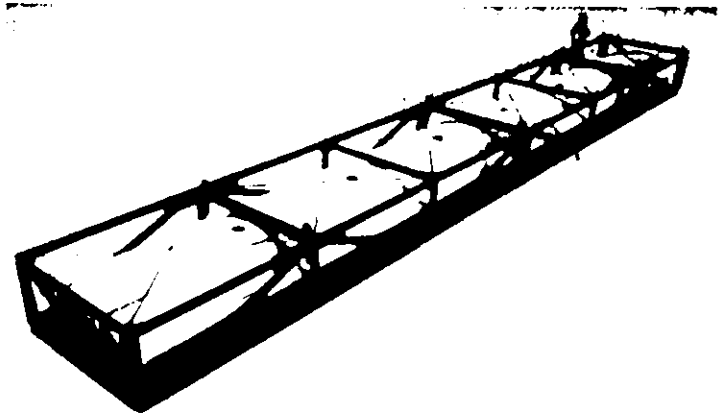


Shipped disassembled, it is quick, simple and economical to assemble and complete the International Railcar.



SPECIFICATIONS

LENGTH (FT)	74'9⅝"	(22.8 M)
WEIGHT (M TONS)	22	
NO. OF SEATS	72-109	
DOORS	6	(4 side, 2 end)

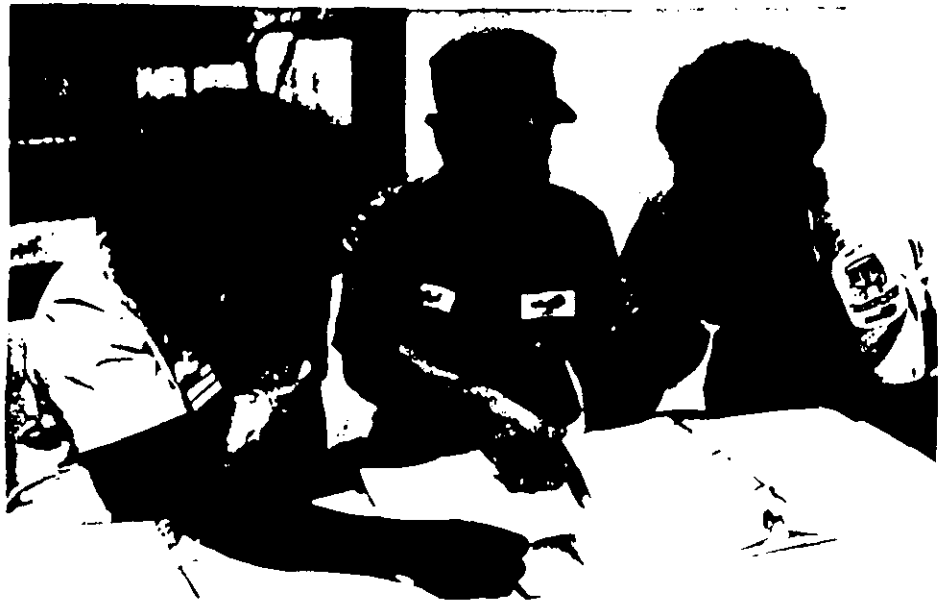
B 0000087

In Brazil — Sao Paulo Metro Cars . . .
We designed and engineered the modern Metro cars for Sao Paulo. MAFERSA and VILLARES, our Brazilian licensees, then built 198 cars for the system's North/South line. At present, the line carries more than 650,000 passengers each day.

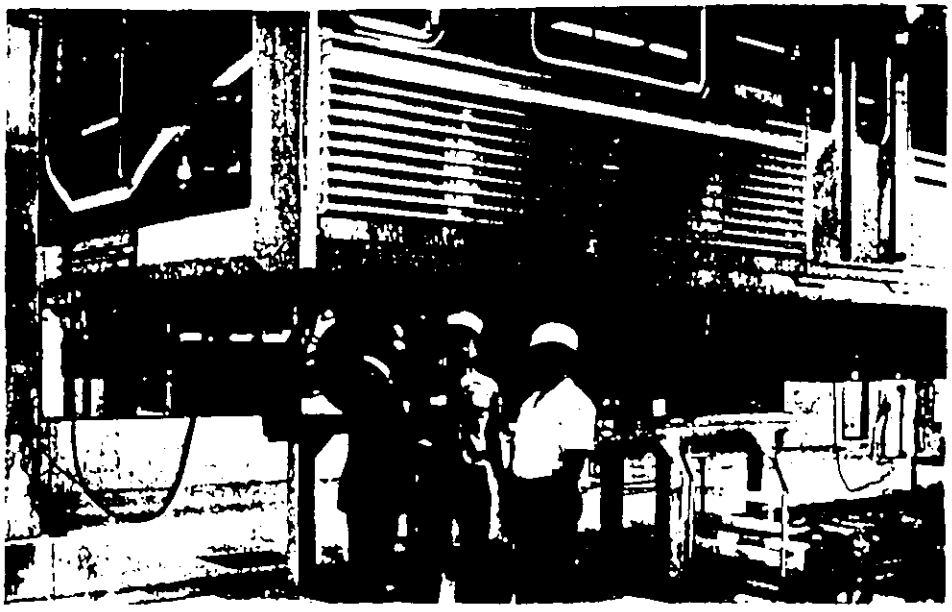
And Rio de Janeiro Metro-Subway Cars
We also provided the total design for the Rio Metro-Subway Car. A fleet of 270 of these stainless steel beauties with their distinctive orange and black stripes are now being produced by MAFERSA and VILLARES.

On-Site Customer Service Assures Quality...Availability...Performance

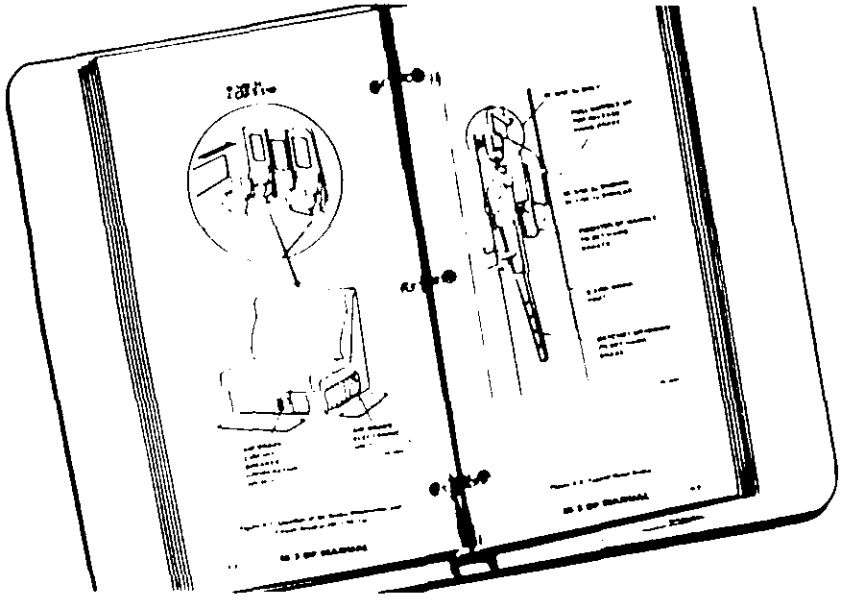
Expert Customer Service from Transit America provides the on-site transfer of technology from us to you necessary to assure maximum vehicle availability and on-time system performance.



Classroom and hands-on operator training



Service and maintenance training



State-of-the art instruction manuals

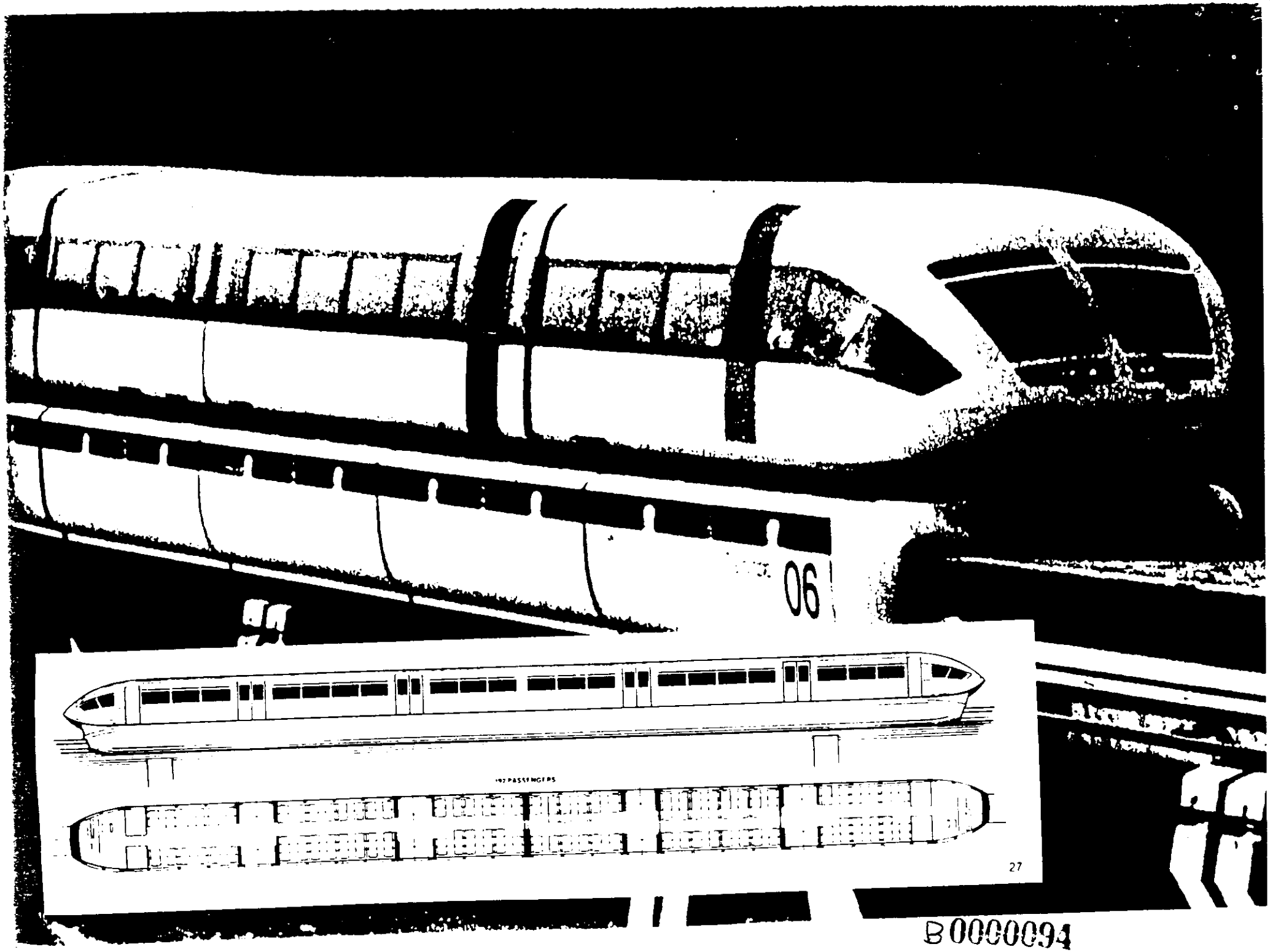
From delivery of the first car to the last, a team of skilled engineers and technicians is assigned to each customer to assist with such diverse tasks as acceptance testing, training of operating and maintenance personnel, and resolving warranty problems. Further backup is provided through a series of comprehensive instruction manuals specially developed to meet individual customer requirements. Subjects covered include training, operation, trouble shooting, running maintenance, overhaul, parts, and special test equipment.

"MagLev" . . . The Nearest Thing to Flying at Ground Level

That's the best way to describe this exciting new form of ground transportation. MagLev is an ultra high-speed transport system in which sleek, aerodynamic vehicles are magnetically levitated, guided and propelled along their guideway at speeds over 250 mph. A MagLev system has many advantages over conventional rail systems. It is safer, quieter and more energy-efficient. Its propulsion system, which converts energy directly into motion, has no moving parts to wear out. It can easily handle 10° grades. It is environmentally clean because it uses centrally generated electric power. And it can be built along existing rail or highway rights-of-way.

We would be pleased to discuss this latest technology with you, study and evaluate your urban or interurban transport needs, and make MagLev system recommendations.

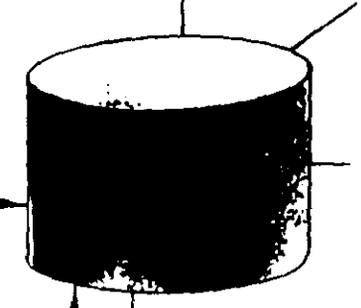
B 0000093



21st Century Ideas Today at Transit America

Electronic Locker — Complexity of microprocessor controls for propulsion, ATO and other advanced systems dictates increased need for accurate reliability assessment.

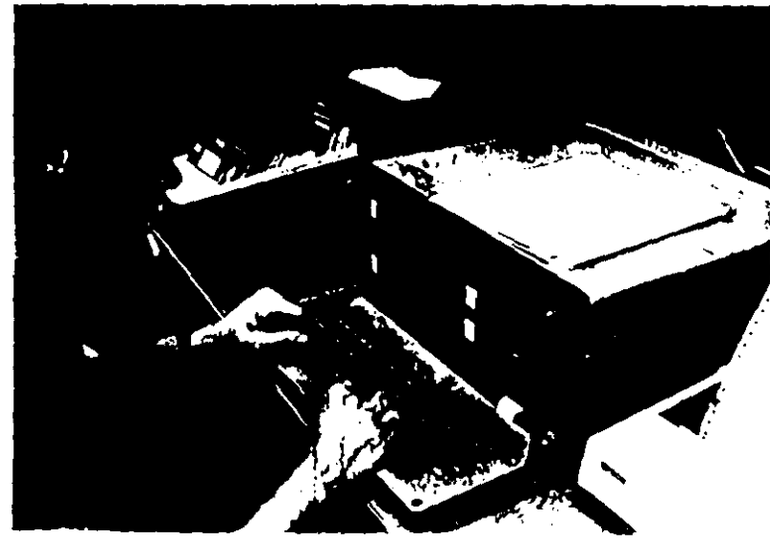
RELIABILITY



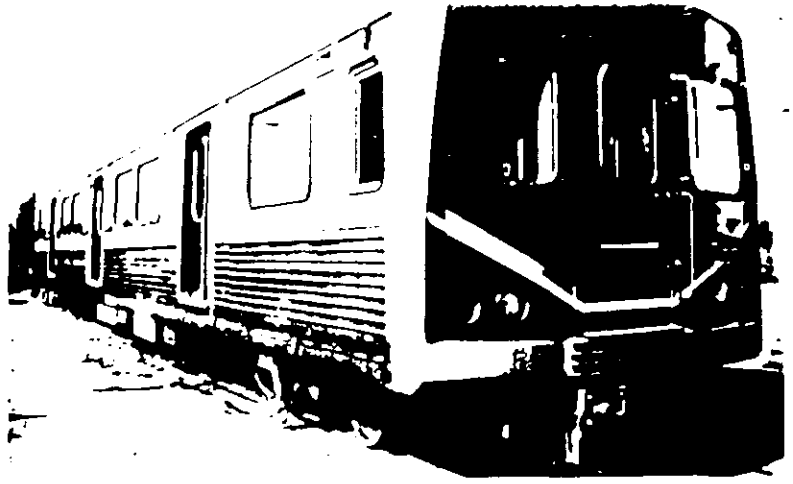
- **Reliability**
- **Maintainability**
- **Safety**
- ***Human Factors Engineering***

Tailored to Customer's Specific Requirements

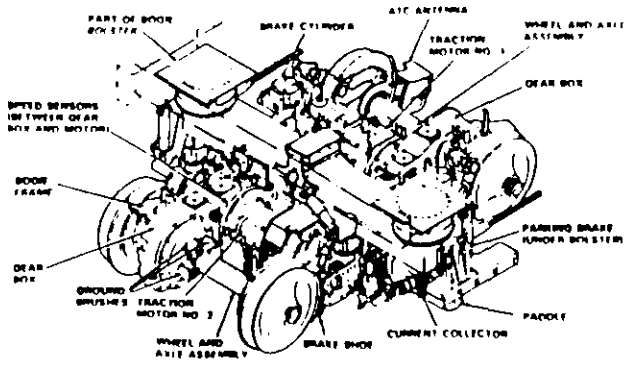
State-of-the-art computerized data acquisition and analysis techniques using information generated in-house (above) and in the field (right) provide the data base for assessing all of our railcar components and systems for reliability, maintainability, safety, and human factors engineering (RMSH). This is typified in the design and engineering of vehicles for the new rail transit systems in Miami and Baltimore.



HUMAN FACTO



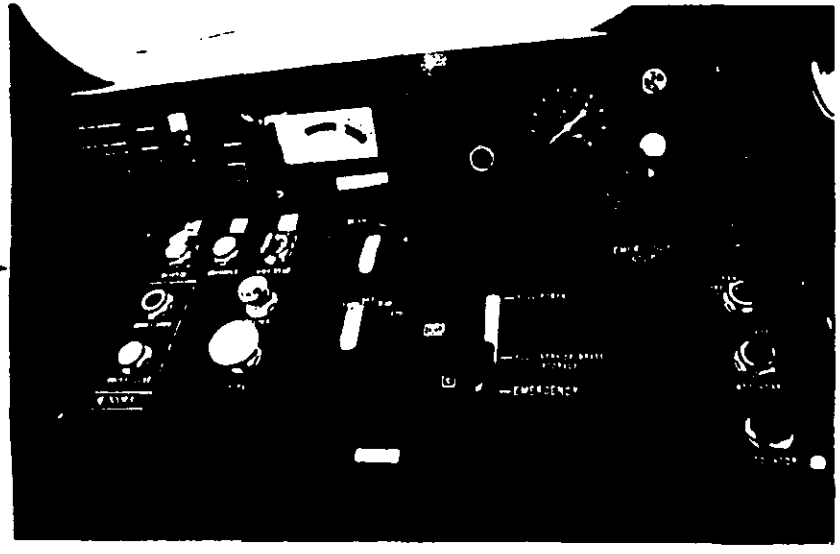
MAINTAINABILITY



Pioneer III Truck Isometric View — Design provides ready access to high density equipment packaged within a confined space for easy servicing and maintenance

SAFETY

Floor Fire Test — Floor structure is engineered to protect passengers in the event of an underfloor fire. Test proves that this floor resists direct flame exposure up to 1800°F (982°C) for 80 minutes without penetrating into passenger area or causing excess interior temperature rise.

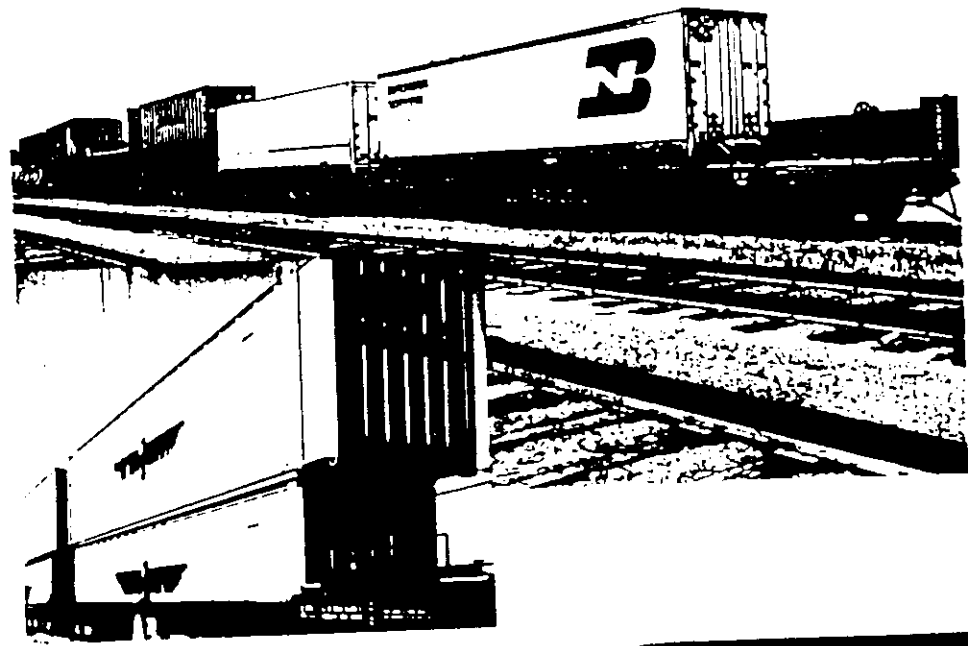


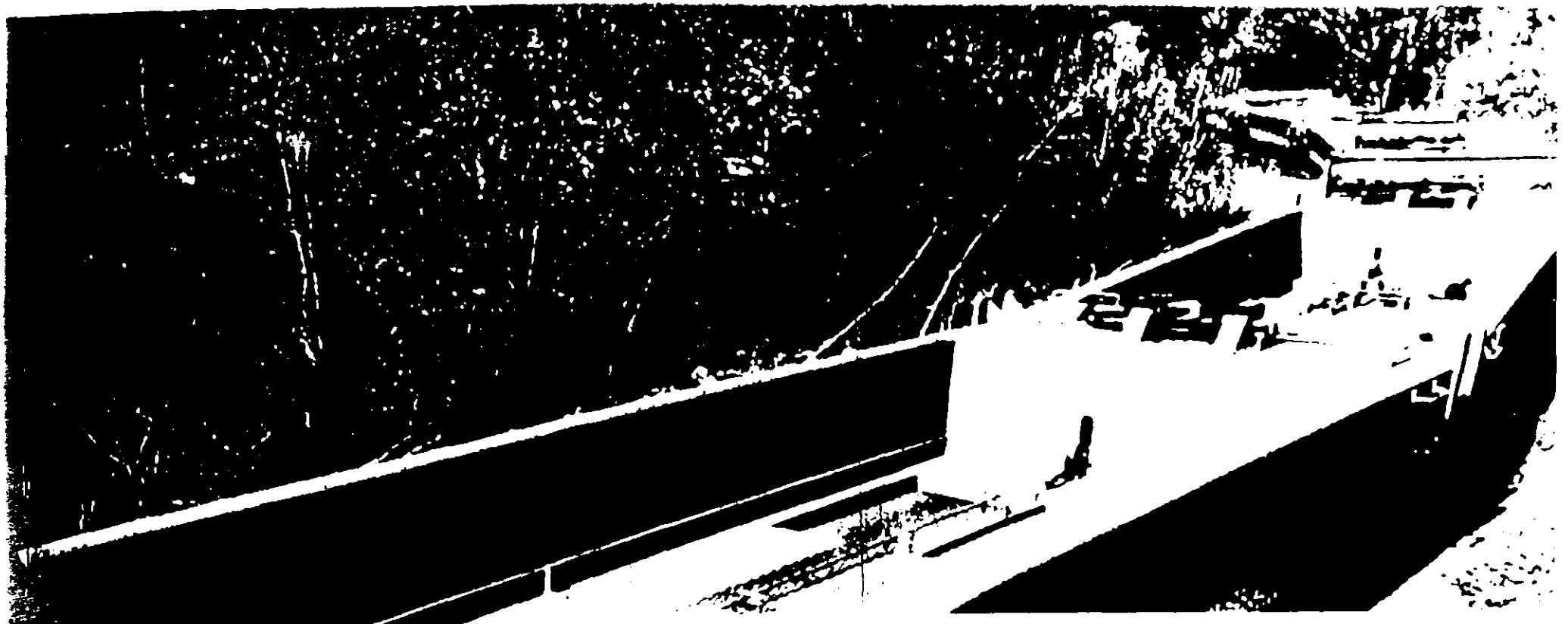
Cab Console — Placement of controls and instruments for ease of operation and accessibility is based on requirements of real people.

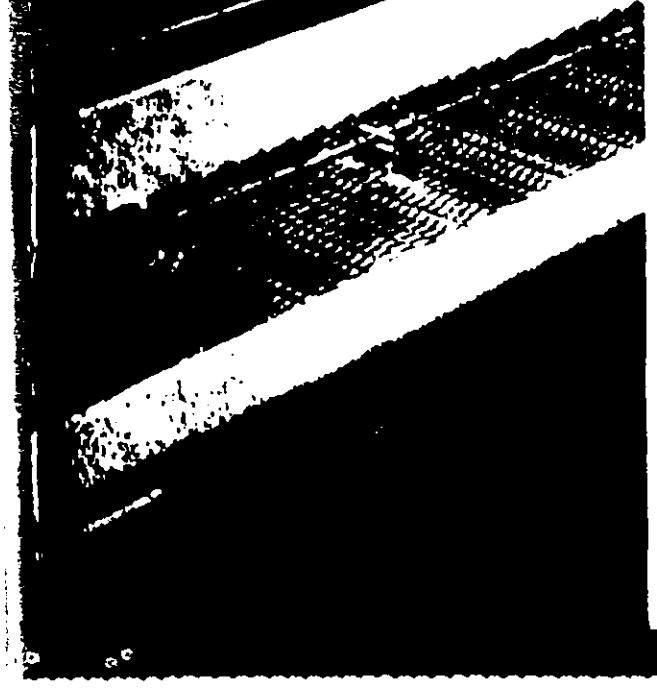
Lo-Pac-2000™ . . .
The Intermodal Breakthrough

Our multi-unit, articulated, deep well platform car is creating a revolution in TOFC and COFC service. Pound for pound, Lo-Pac 2000 is the most efficient intermodal car designed to date. The multi-purpose version (top) or the double-stack container car (bottom) offers customers an unprecedented degree of flexibility in obtaining cars to meet their specific requirements.

Conrail, in its 1984 3rd quarter report, describes the APL "Liner Train," made up of 20 five-unit Lo-Pac cars, as ". . . an extremely important breakthrough in the transportation of marine containers. The efficiency achieved by its ability to haul the same number of containers as two conventional trains is further enhanced by the fact that the new flatcars themselves are the lightest and most efficient ever built for intermodal transportation. Each platform weighs only 30,000 pounds, which is some 60 percent less than today's conventional rail flatcar."

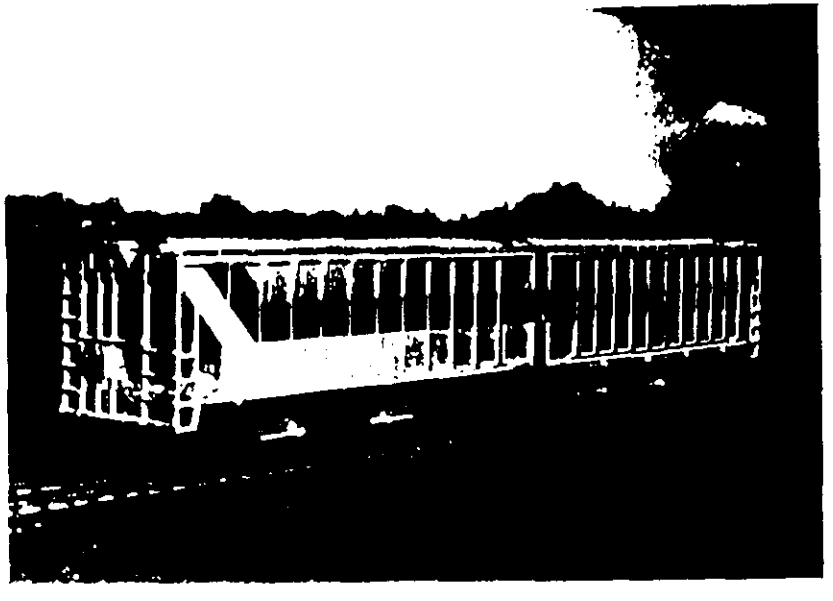






High-Cube Hopper Car . . . Good News for Shippers

A new concept in hopper car design is presently being developed by Transit America. Engineered to meet the needs of dry bulk shippers and carriers throughout the world, the two-unit articulated vehicle will provide a significantly improved net-to-tare ratio. It also will allow reduced train weight and length for the same cubic capacity.



B 0000098

Stainless Steel . . . the Magic Material

Behind the success of every design and every type of railcar produced here the last 50 years is stainless steel. We pioneered stainless steel construction in the early 1930's, and still continue our research and refinement of this material to produce state-of-the-art results in fuel efficient design, durability, and safety. The unique strength . . . its economical long range performance, and its minimum of maintenance, repair, and operation costs, make it the magic material for all of our customers.

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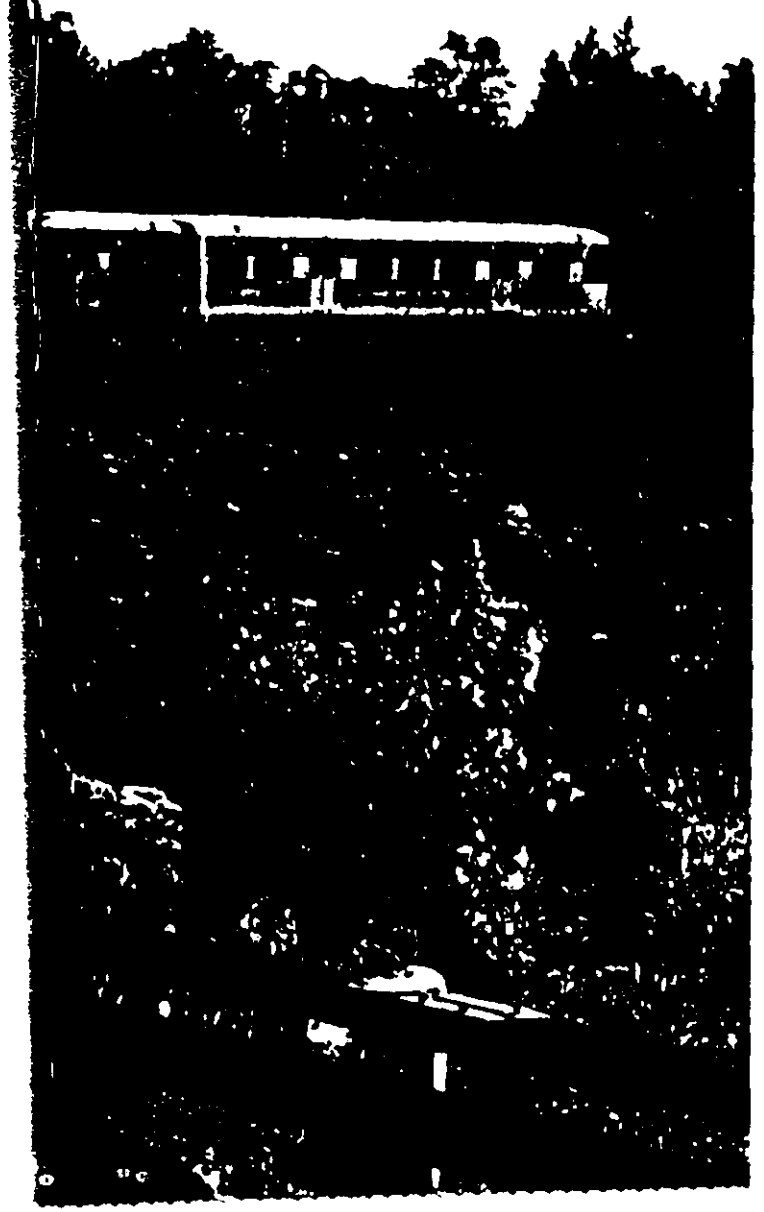
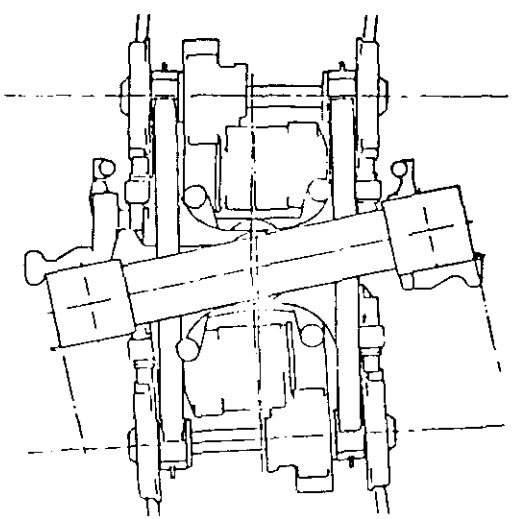
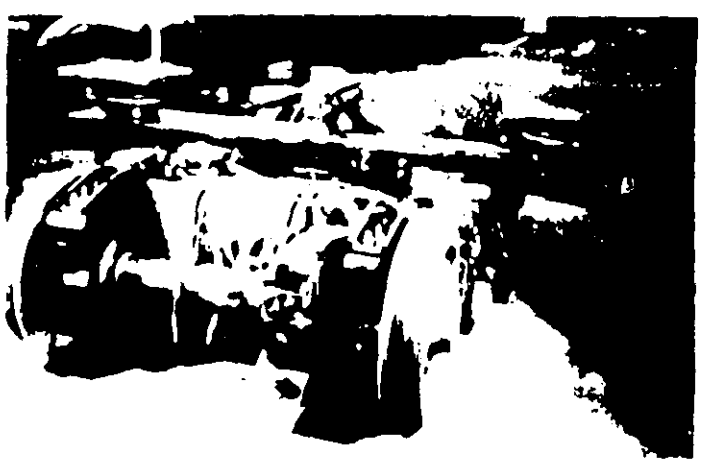


RAILWAY TRUCK TECHNOLOGY

Steerable Axles . . . Cost Cutters for New Rail Systems

In conjunction with the Budd Technical Center in nearby Fort Washington, Pa., we are continuing to explore improvements and cost reduction in railcar construction. A promising new development is the steerable axle truck that reduces wheel wear, rail wear and noise in curves by eliminating tracking error and lateral motion. It also reduces vehicle noise and vibration, lowers flange forces, and eliminates wheel rubbing. In addition, the steerable truck will cut costs in new rail systems by eliminating the need for large radius curves, which often require expensive modifications to foundations of existing buildings along the right-of-way. A car equipped with a set of these trucks is proving their value in revenue service on the PATCO High-Speed Line in the Philadelphia area.





The P-III Becomes Turnable, Tiltable, Tuneable

When the Pioneer-III air spring truck was introduced in the late 1950s, it established new standards of passenger ride comfort, simplicity of design and ease of maintenance. In recent years, a number of options have been developed which retain the truck's basic design, but which offer additional specific advantages such as steering, tilting and a softer suspension. These advances allow users to select truck design to meet their particular system requirements.

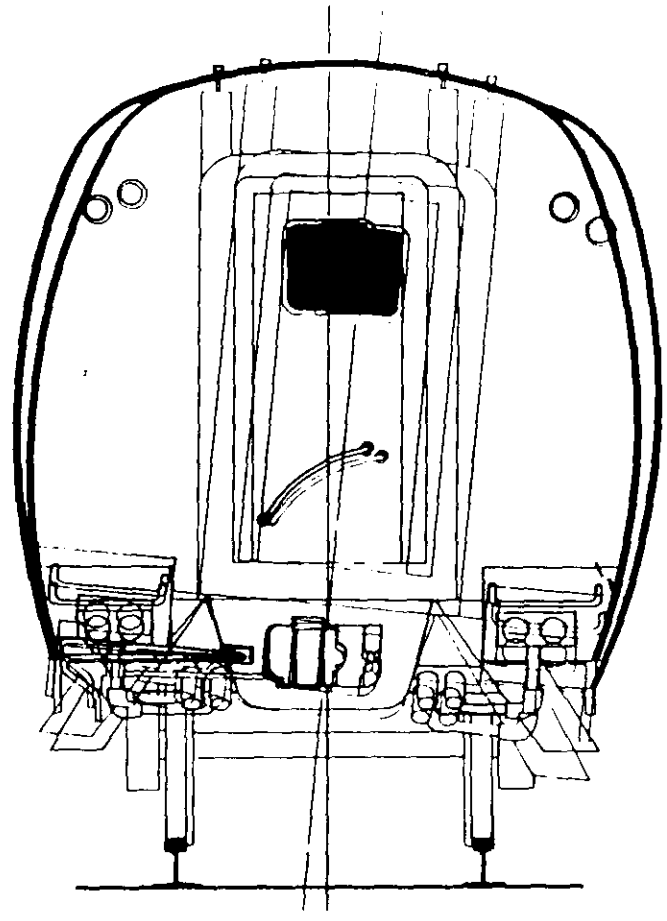
In conventional trucks, the axles are held parallel to each other. This results in rapid wheel and rail wear as well as the familiar noise in sharp curves. With our steerable truck adaptation, the axles assume a radial position with respect to the track in curves. This greatly reduces the angle of attack between the wheels and rail, and therefore reduces noise and wear.

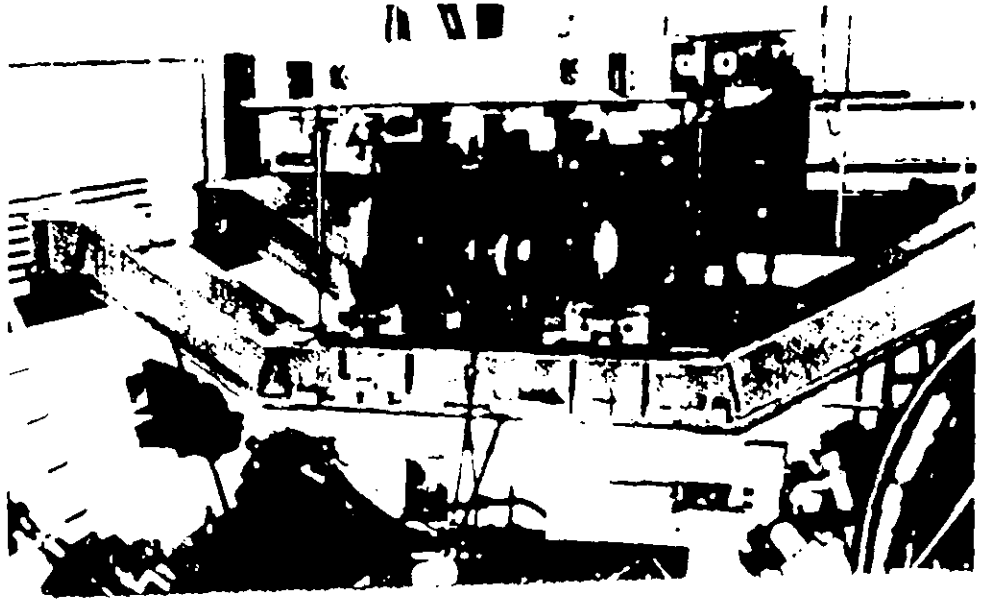
Steerable trucks for transit use are designed to accommodate sharp curves. Here, the axles, motors and brakes are mounted on arms that steer. In the option designed for less severe curves, steering is accomplished by introducing controlled longitudinal compliance at the mountings of the journal boxes to the truck frame.

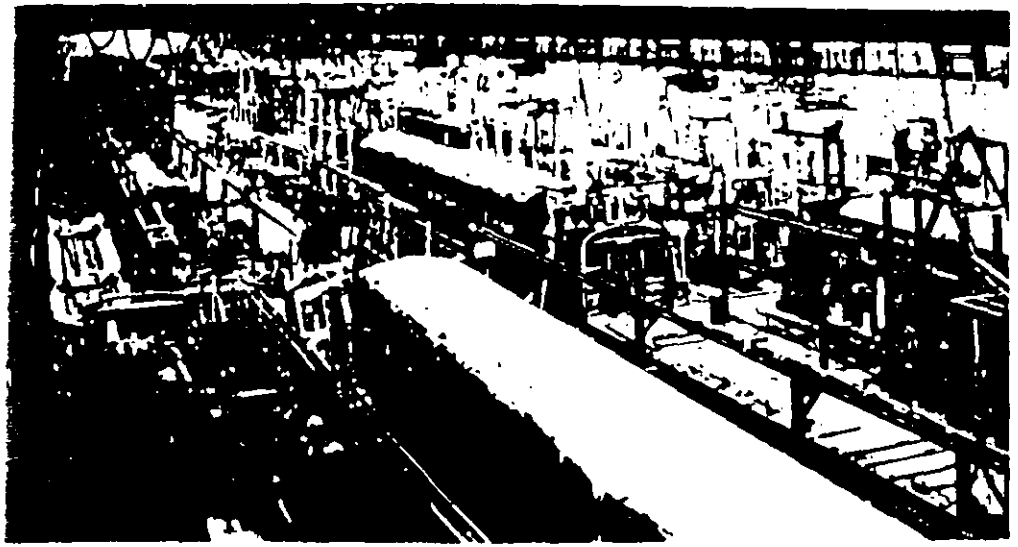
A key to the success of these developments is the Technical Center's non-linear rail vehicle dynamic simulation. This unique, comprehensive computer program determines the forces and motions of the vehicle and its components from the inputs generated by wheel and track geometry.

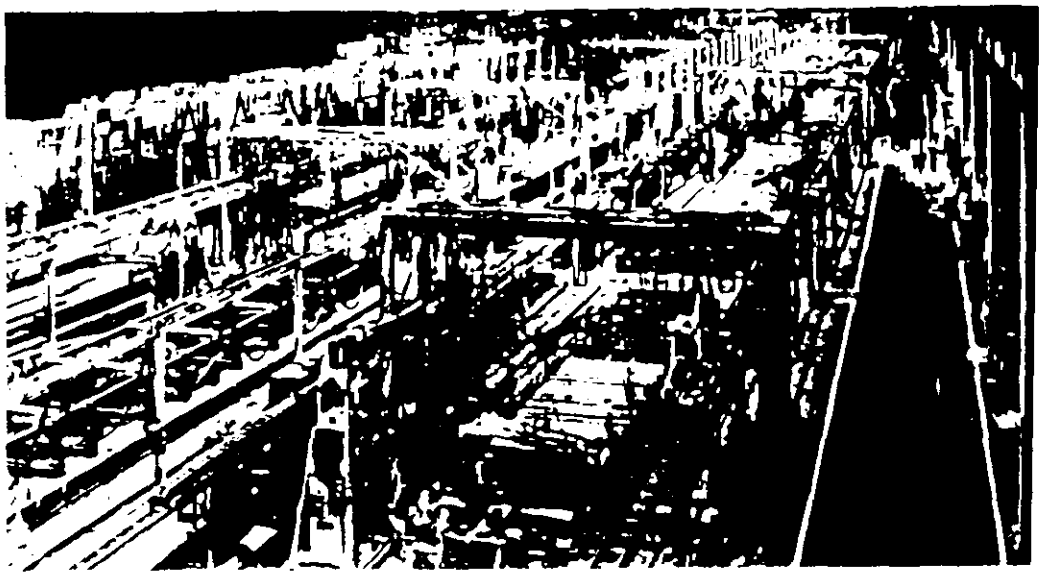
The tilt system for the P-III truck is designed to allow trains to negotiate curves at higher speeds without causing passenger discomfort. The tilt mechanism uses air actuators and a simple non-feedback control system to bank carbodies inward on the curve, thereby reducing lateral acceleration on the passengers. Tilt body technology can cut passenger train trip times on any route with a significant number of curves.

The P-III soft primary option was developed to allow tuning of the suspension to minimize wayside environmental disturbances, and to reduce truck frame accelerations for longer component life. Tuning is achieved using a unique computer program which models the dynamic interaction between the vehicle and roadbed, taking into account not only vehicle characteristics but also those of the rails, ties and ballast. The result is that suspension systems can now be optimized for specific operating conditions.









Transit America . . . The Train of Railcar Innovation Rolls On

Over the years, we have designed and built more than 11,000 passenger vehicles for many of the most progressive railroads and mass transit/computer systems around the globe.

From the early days of the Zephyrs in the 1930s to the Metroliners of the '60s . . . from Amtrak's new Amfleet cars in the '70s and early '80s to the SPV-2000 of today and tomorrow. On the Horizon, other new concepts such as magnetic levitation that will continue to find their way from the drawing board to reality.

As in the past, we will continue to work with the Budd Technical Center. There, R&D scientists, engineers, computer design experts and skilled technicians are already working with us to design and develop prototypes of the most sophisticated railcars in the world. Together, we are also involved in several exciting new projects for the Urban Mass Transit Administration and the Federal Railway Administration.

Our capabilities don't stop with the production of railcars at a plant covering more than 1¼-million square feet in Philadelphia. We also offer the most complete transportation equipment test facility in existence . . . featuring a unique dynamic rail and road simulator, computer testing laboratories, and state-of-the-art equipment and facilities for pressure, load, strain, fatigue, water, motion, vibration and climate testing.

This is Transit America . . . with our innovative technologies, resources, experience, materials, and people . . . dedicated to continuing our leadership in meeting the railcar transport challenges of today and of the future.

B0000102

CUSTOMER LIST
Proven Experience in Rail Transit

CUSTOMER	CAR TYPE	PROPULSION	QUANTITY	OPERATED BY	COMPLETED
Metropolitan Transportation Authority (NY)	MU Commuter	650 DC	316	Metropolitan Transportation Authority	1985 (scheduled)
Metropolitan Transportation Authority (NY)	SPV-2000	Diesel Engine	10	Metro-North Commuter Railroad	1981
Amtrak	Mainline	Locomotive	150	Amtrak	1983
Miami-Baltimore	Rapid Transit	700 DC	236	Metro Dade County (Miami, Florida) Mass Transit Administration (Baltimore, Maryland)	1985 , (scheduled)
Chicago Transit Authority	Rapid Transit	600 DC	600	Chicago Transit Authority	1986 (scheduled)
Regional Transportation Authority (Chicago)	Gallery Commuter	Locomotive	55	Six Chicago-area Railroads	1980
Connecticut Dept. of Transportation	SPV-2000	Diesel Engine	13	Amtrak	1980
Federal Railroad Administration	SPV-2000	Diesel Engine	1	FRA	1980
Office National des Chemins de Fer	SPV-2000	Diesel Engine	6	ONCF	1979
Regional Transportation Authority (Chicago)	Gallery Commuter	Locomotive	80	Four Chicago-area Commuter Railroads	1979
West Suburban Mass Transit District (Chicago)	Gallery Commuter	Locomotive	22	Burlington Northern	1978
Amtrak	Mainline	Locomotive	492	Amtrak	1977
General Electric	Car Bodies	650 DC	100	Metropolitan Transportation Authority	1975
NorthWest Suburban Mass Transit District (Chicago)	Gallery Commuter	Locomotive	36	Milwaukee Road	1974
North Suburban Mass Transit District (Chicago)	Gallery Commuter	Locomotive	5	Milwaukee Road	1974
West Suburban Mass Transit District (Chicago)	Gallery Commuter	Locomotive	94 (rebuilt)	Burlington Northern	1974
West Suburban Mass Transit District (Chicago)	Gallery Commuter	Locomotive	25	Burlington Northern	1973
General Electric	MU Commuter	650 DC	330	Metropolitan Transportation Authority	1973
Metropolitan Transportation Authority (NY)	MU Commuter	650 DC	620	Metropolitan Transportation Authority	1971
Chicago	Rapid Transit	600 DC	150	Chicago Transit Authority	1970